SCREENING SITE INSPECTION REPORT
FOR
EMPIRE-DETROIT STEEL DIV FOX HOLLOW
NEW BOSTON, OHIO
U.S. EPA ID: OHD054022900
SS ID: NONE
TDD: F05-8805-006
PAN: FOH0824SB

AUGUST 6, 1991

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SIGNATURE PAGE
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1. INTRODUCTION

Ecology and Environment, Inc. (E & E), Field Investigation Team (FIT) was tasked by the United States Environmental Protection Agency (U.S. EPA) to conduct a screening site inspection (SSI) of the Empire-Detroit Steel Div Fox Hollow (EDS) site under contract number 68-01-7347. C.C. Johnson and Malhotra, P.C. (CCJM), a subcontractor to E & E under the above contract, was responsible for conducting this investigation.

The site was initially identified to U.S. EPA in June 1981 by a notification pursuant to section 103(c) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This notification was prepared by J. L. Smith, Division Director, Environmental/Quality Control, Empire-Detroit Steel Division, Mansfield, Ohio. The waste type listed on the notification was a sludge that resulted from off-site coking operations and was disposed of on-site (U.S EPA 1981). The site was subsequently evaluated in the form of a preliminary assessment (PA) that was submitted to U.S. EPA. The PA was prepared by Lori Marsh of the Ohio Environmental Protection Agency (OEPA) and is dated September 24, 1987 (U.S. 1987).

FIT prepared a SSI work plan for the EDS site under technical directive document (TDD) F05-8805-006, issued on October 6, 1988. The work plan for the EDS site was approved on June 21, 1990. The SSI of the EDS site was conducted on November 29, 1990 under amended TDD F05-8805-006.

The SSI included an interview with a site representative, a reconnaissance inspection of the site, the collection of seven soil samples, and obtaining photographs of current site conditions and sampling locations.

The purposes of an SSI have been stated by U.S. EPA in a directive outlining Pre-Remedial Program strategies. The directive states:

> All sites will receive a screening SI to 1) collect additional data beyond the PA to enable a more refined preliminary HRS [Hazard Ranking System] score, 2) establish priorities among sites most likely to qualify for the NPL [National Priorities List], and 3) identify the most critical data requirements for the listing SI step. A screening SI will not have rigorous data quality objectives (DQOs). Based on the refined preliminary HRS score and other technical judgement factors, the site will then either be designated as NFRAP [no further remedial action planned], or carried forward as an NPL listing candidate. A listing SI will not automatically be done on these sites, however. First, they will go through a management evaluation to determine whether they can be addressed by another authority such as RCRA [Resource Conservation and Recovery Act].... Sites that are designated NFRAP or deferred to other statutes are not candidates for a listing SI.
>
> The listing SI will address all the data requirements of the revised HRS using field screening and NPL level DQOs. It may also provide needed data in a format to support remedial investigation work plan development. Only sites that appear to score high enough for listing and that have not been deferred to another authority will receive a listing SI. (U.S. EPA 1988)

U.S. EPA Region V has also instructed FIT to identify sites during the SSI that may require removal action to remediate an immediate human health or environmental threat.

2. SITE BACKGROUND

2.1 INTRODUCTION

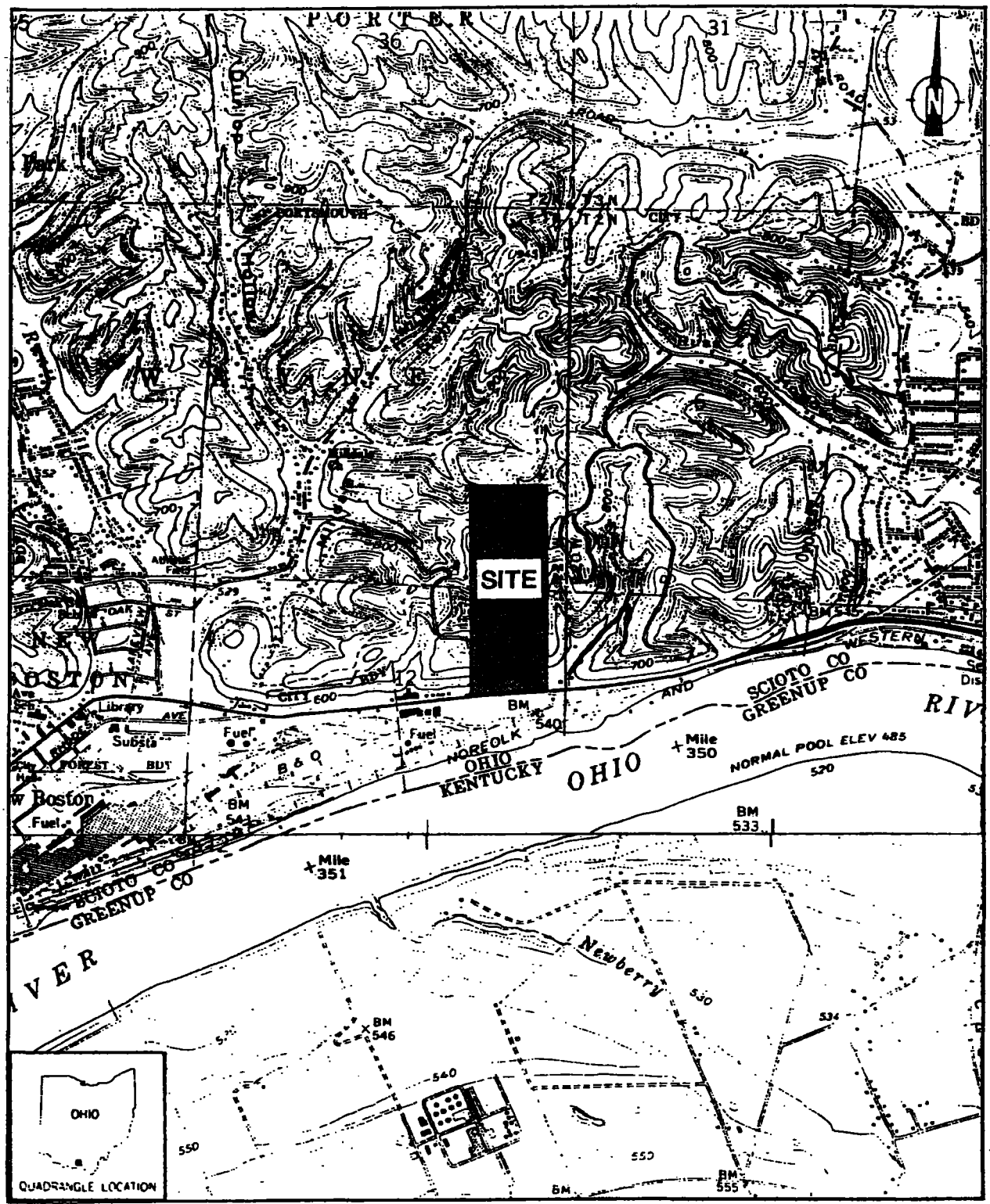
This section presents information obtained during the SSI work plan preparation, the site representative interview, and the reconnaissance inspection.

2.2 SITE DESCRIPTION

The EDS site is a 72-acre active slag and steel scrap recovery facility east of New Boston, Ohio. The site is located at 3879 Rhodes Avenue, Scioto County, in Porter Township (secs. 1 and 12, R.21W T.1N.). The EDS site is bordered on the south by U.S. Route 52 (U.S. 52); the Ohio River is located approximately 1,000 feet south of the site (see Figure 2-1 for site location). Wooded hills are located to east, north, and west of the site. A 4-mile radius map of the EDS site is provided in Appendix A.

2.3 SITE HISTORY

The EDS site is currently owned by Cunningham Materials, Inc. (CMI), which is owned by Karl Cunningham and his brother, Glenn Cunningham. According to Karl Cunningham, CMI purchased the site from the Empire-Detroit Steel Division (Empire Detroit Steel) of Detroit Steel Corporation in 1982 (Cunningham 1990). Empire-Detroit Steel owned and operated the site from approximately 1942 until selling it to CMI (U.S. EPA 1987). FIT file information does not list any owners or operators of the EDS site prior to Empire-Detroit Steel (Cunningham 1990).



SOURCE: New Boston, OH-KY Quadrangle, 7.5 Minute Series, 1961, photorevised 1975; Portsmouth KY-OH Quadrangle, 7.5 Minute Series, 1968, photorevised 1975.

SCALE
0 ½ 1 MILE

FIGURE 2-1 SITE LOCATION

According to Karl Cunningham, the site was orginally a shale quarry and was excavated as a source of shale for the manufacture of bricks used in construction. Cunningham did not know the years that the quarry was in operation or the names of the quarry operators (Cunningham 1990).

Empire-Detroit Steel operated the site as an open dump and storage area for slag generated during the operation of its off-site steel mill and coking plant (Cunningham 1990; U.S. EPA 1987). On the CERCLA 103(c) notification, Empire-Detroit Steel reported that approximately 1,000 cubic feet of decanter tank tar sludge, a waste byproduct that resulted from the coking operation, was dumped at the EDS site between 1942 and 1980 (U.S. EPA 1981). The tank tar sludge may contain naphthalene and phenol, common constituents of process waste that results from coking operations (U.S. EPA 1980, 1987). According to Karl Cunningham, Empire-Detroit Steel also disposed of concrete and steel at the site (Cunningham 1990). FIT file information does not contain any reports of inspections conducted by state or local regulatory agencies.

Since purchasing the site, CMI has operated a slag and steel scrap recovery business on-site. CMI uses sieving equipment to separate the granular slag from the steel. Conveyor belts move the slag and steel into the sieve; once the separation process takes place, the conveyer belts moves the slag and steel out of the sieve. The materials are placed in separate piles on-site. This equipment is powered by diesel fuel, which was stored on-site in two 3,000 gallon aboveground storage tanks. The slag is used by CMI as a building material for road and building construction. The recovered steel is stockpiled and resold and transported by CMI to various steel mills for reuse.

According to Karl Cunningham, OEPA inspected the site in 1982 and 1987. Cunningham stated that OEPA made no official report and no regulatory actions were taken (Cunningham 1990). Based on FIT file information no regulatory or response-related activities have been conducted at the EDS site.

3. SCREENING SITE INSPECTION PROCEDURES AND FIELD OBSERVATIONS

3.1 INTRODUCTION

This section outlines procedures and observations of the SI of the EDS site. Individual subsections address the site representative interview, reconnaissance inspection, and sampling procedures. Rationales for specific FIT activities are also provided. The SSI was conducted in accordance with the U.S. EPA-approved work plan with the following exceptions. Although the total number of soil samples was unchanged the number of samples collected on-site and off-site was revised. An additional on-site soil sample was collected to enable FIT to better characterize the on-site wastes. One off-site soil sample was collected instead of the two stated in the work plan because FIT believed that one sample would adequately assesss the chemical composition of soil in the area of the site.

The U.S. EPA Potential Hazardous Waste Site Inspection Report (Form 2070-13) for the EDS site is provided in Appendix B.

3.2 SITE REPRESENTATIVE INTERVIEW

Nahid Brown (FIT team leader), Mike Dieckhaus (FIT team member), and Mary Tierney (FIT team member) conducted an interview with Karl Cunningham, president of CMI, and co-owner of the site. The interview was conducted at 8:12 a.m. on November 29, 1990, CMI office at the in Wheelersburg, Ohio. The interview was conducted to gather information that would aid FIT in conducting SSI activities.

3.3 RECONNAISSANCE INSPECTION

Following the site representative interview, FIT conducted a reconnaissance inspection of the EDS site and surrounding area in accordance with E & E health and safety guidelines (E & E 1987). The reconnaissance inspection was conducted on November 29, 1990, at 9:50 a.m. and included a walk-through of the site to determine appropriate health and safety requirements for conducting on-site activities and to make observations to aid in characterizing the site. FIT also determined sampling locations during the reconnaissance inspection. FIT was accompanied by Karl Cunningham during the reconnaissance inspection.

Reconnaissance Inspection Observations. The site is bordered on the south by U.S. 52; an industrial area, Norfolk and Western Railroad tracks and an unnamed creek are located directly south of U.S. 52. Wooded hills are located east, west, and north of the site (see Figure 3-1 for site features).

The total area of the site is approximately 72 acres (Cunningham 1990). Steep wooded hills (with an average slope of 26^{0}) make up approximately 52 acres of the site. The remaining 20 acres, which occupy the central portion of the site, is used by CMI for its on-site slag and steel scrap recovery operation. A shale quarry was previously located in this same 20-acre section of the site. This active portion of the site is situated between shale outcrops that were exposed during the excavating of the quarry. FIT observed that a large portion of the ground surface was covered by pulverized, particulate-form slag. Two entrances provide access to the site; one entrance is located near the southeast corner of the site and leads to U.S. 52. A cable strung across the entrance functions as a gate. FIT observed several piles of slag approximately 300 feet west of this entrance.

A second entrance is provided through a U.S. 52 underpass, which extends from the industrial area south of the site, under the highway and enters the site at a point directly west of the first entrance. The underpass is paved and is bordered on the east and west by two embankments. FIT observed standing water in the underpass; water also dripped from the top and down the sides of the underpass. Surface water runoff appeares to drain from the site along the embankments into the underpass. FIT observed water seeping from the sides of the embankments

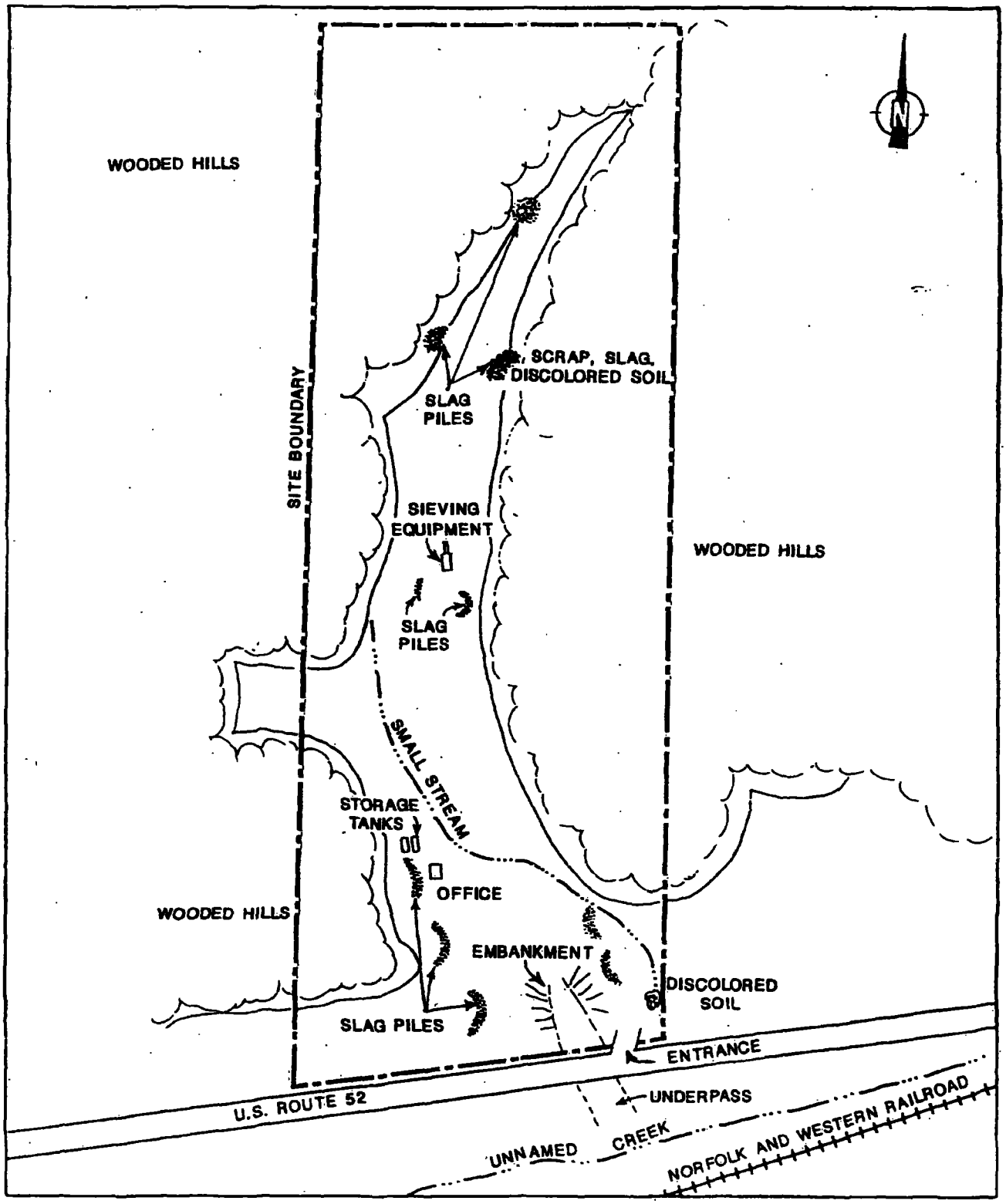


FIGURE 3-1 SITE FEATURES

into the underpass. FIT did not observe water migrating from the underpass. Two piles of slag approximately 12 feet high were loated east of the embankments. FIT observed some green, discolored soil near these piles.

According to the PA, a drain that discharges to the Ohio River is located under the site (U.S. EPA). However, FIT did not observe an engineered drainage system during the SSI.

FIT did not observe a surface water pathway between the standing water and the creek located in the off-site industrial area. The creek may extend to the Ohio River, however FIT was unable to determine this during the SSI.

An unpaved road leads north from the embankments and the entrance from U.S. 52. The road lies between the shale outcrops, which rise approximately 160 feet above the road surface. The road leads to a small trailer and the operational areas of the site. The trailer is located approximately 600 feet north of U.S. 52 and houses the on-site office. Two 3,000-gallon aboveground storage tanks are located north of the trailer. These tanks contain diesel fuel used to power the on-site equipment.

The slag recovery operation is conducted in the central section of the site, north of the trailer. Conveyor belts and a sieve are located in this section of the site. This equipment separates scrap metal from the slag. Slag was piled near the conveyor belts. FIT observed a small stream that was apparently formed by water seeping from the soil in this area. FIT followed the small stream to the area east of the embankment and the slag piles, near the southeastern corner of the site. At this point, the small stream terminates and the water appears to drain into the discolored soil near the slag piles.

FIT observed three area where scrap steel and other metals had been placed. These areas were located north of the sieving equipment. A small patch of discolored soil was located near one of the scrap locations, at the base of a wooded hill. Much of the scrap steel was rusted, but remained in large pieces. FIT also saw piles of slag at these locations. The slag appeared to be separated, according to size into piles. Along the northern boundary of the site, FIT observed trash (tires, bottles, and cans) mixed in the steel scrap and slag. FIT did

not observe any evidence of engineered liners under the slag piles. FIT file information contains no information that would indicate engineered liners had been in use on-site. The site is guarded by security personnel at all times (Cunningham 1990). The site is unfenced, however the wooded hills bordering the site may provide a natural barrier.

FIT did not observe any activities occurring on the wooded, hilly areas of the site. Photographs of the EDS site are provided in Appendix C.

3.4 SAMPLING PROCEDURES

Samples were collected by FIT at locations selected during the reconnaissance inspection to determine whether U.S. EPA Target Compound List (TCL) compounds or Target Analyte List (TAL) analytes were present at the site. The TCL compounds and TAL analytes are included with corresponding quantitation/detection limits in Appendix D.

The site representative was offered a portion of the on-site samples, but the offer was declined.

Surface soil sample S1 was collected in the northern section of the active portion of the site (see Figure 3-2 for on-site soil sampling locations). Sample location S1 was selected because the tires, scrap, and slag piled at this location may contain TCL compounds and TAL analytes. The sample consisted of dry, brown and black silty loam that was poorly sorted.

Surface soil sample S2 was collected approximately 1,000 feet south of S1, near a pile of slag, scrap steel and debris. Sample S1 was collected to determine whether TCL compounds and TAL analytes were present in this location. The sample consisted of clay loam.

Surface soil sample S3 was collected approximately 250 feet east of S2, near a pile of scrap and slag. The topsoil near this pile was discolored indicating that TCL compounds and TAL analytes may have been present at this location. Sample S3 consisted of poorly sorted sandy loam with pebbles.

FIT collected surface soil sample S4, a waste sample, from an area adjacent to the sieving equipment. The sample location was selected because much of this area was covered with slag, indicating the presence

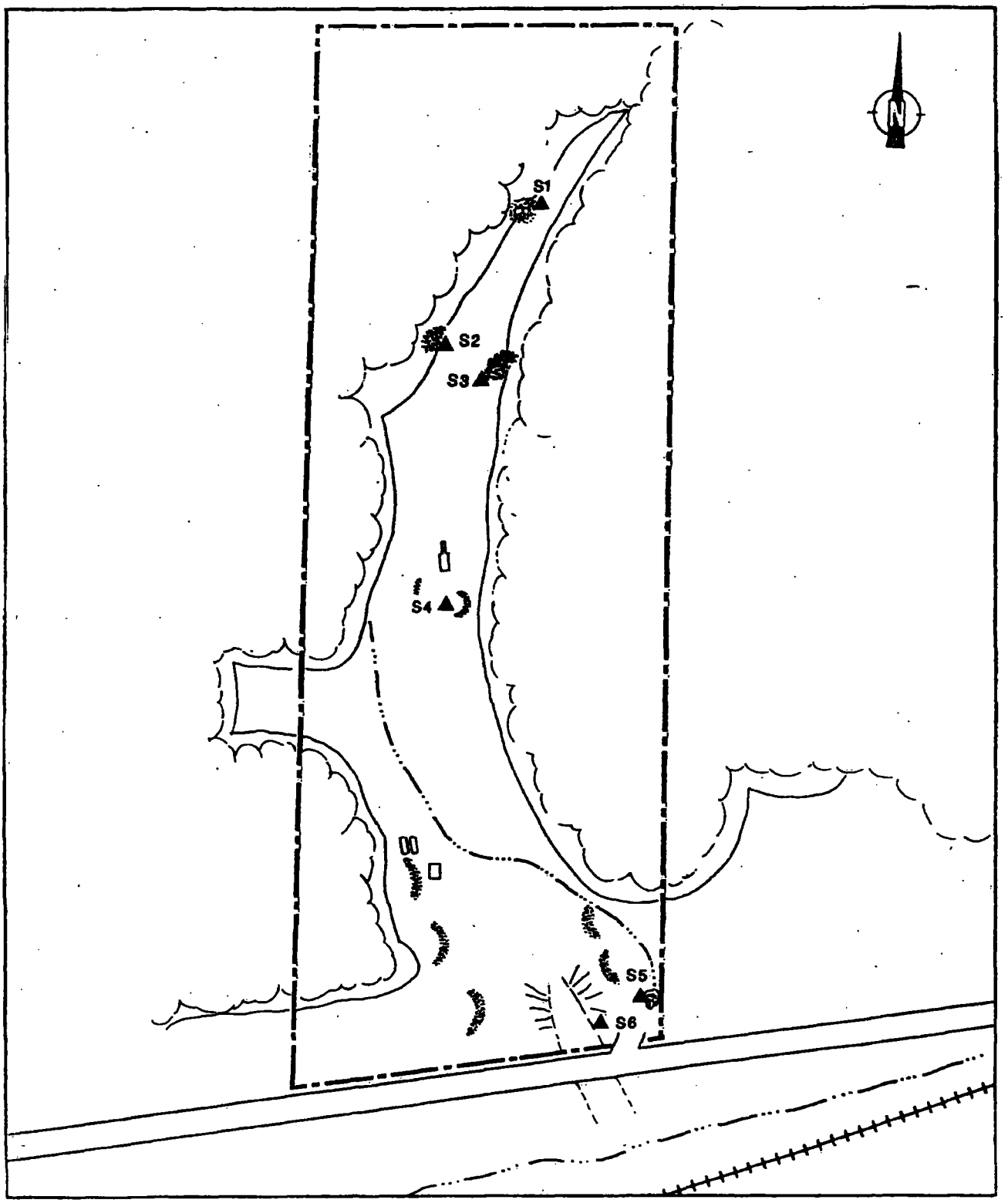


FIGURE 3-2 ON-SITE SOIL SAMPLING LOCATIONS

of TCL compounds and TAL analytes. The sample was collected to characterize on-site wastes and was comprised of black, granular slag.

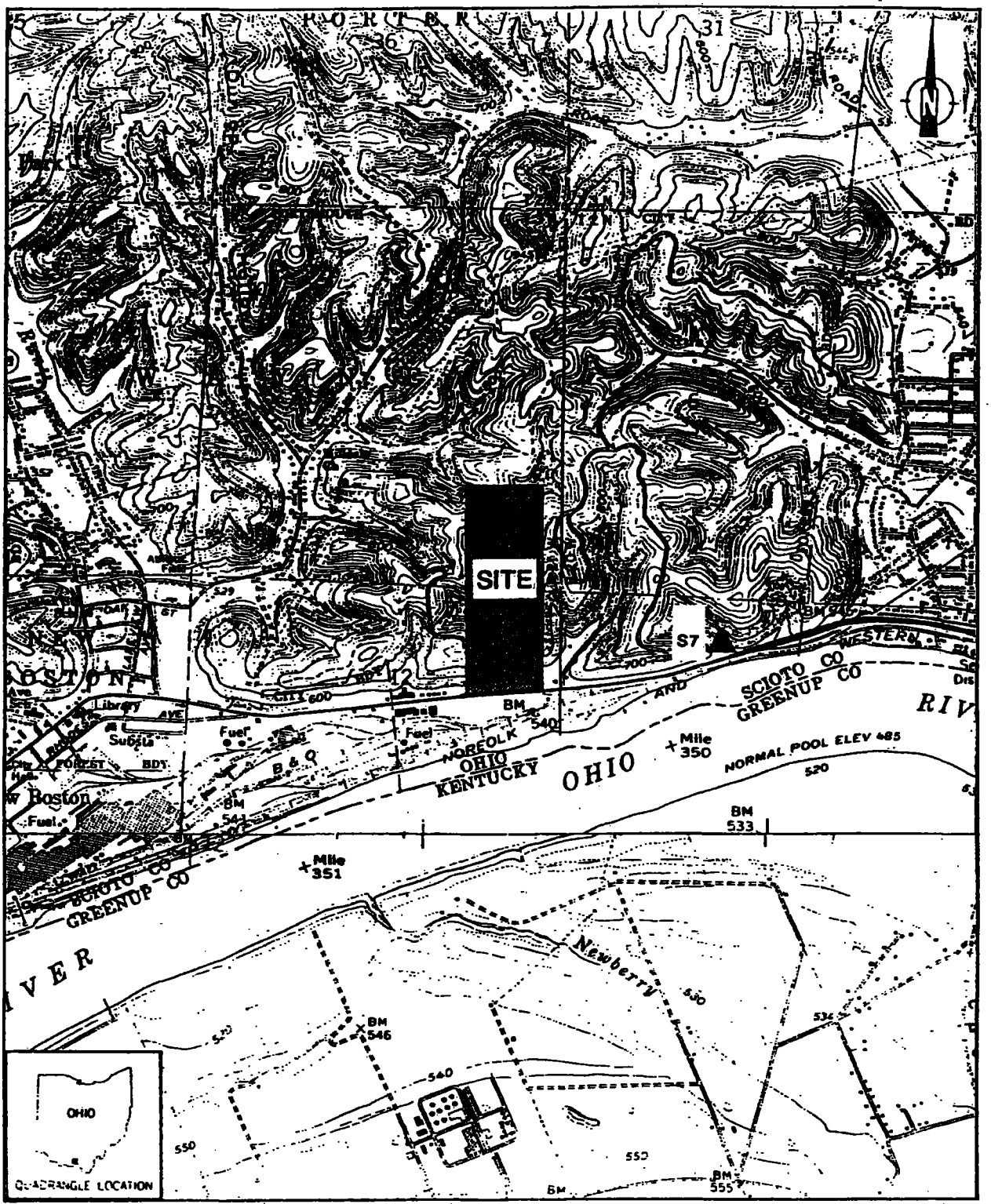
Surface soil sample S5 was collected in the southeast corner of the site, near an area where slag had been piled. Water drained into this location from the northern portion of the site. The sample location was chosen to determine whether any TCL compounds and TAL anlyted were transported into the area via surface water runoff. The soil was green at the surface; the underlying soil was red-brown with some yellow coloration.

Surface soil sample S6 was collected southwest of S5. The sample was collected from an embankment adjacent to the underpass, where FIT had observed water seeping from beneath the slag and flowing down the side of the embankment. FIT selected this sample location to determine whether the water seeping from the embankment contained TCL compounds and TAL analytes. The sample consisted of black silty clay.

Surface soil sample S7, a potential background sample, was collected to assess the relative chemical composition of the soil in the area of the site. Sample S7 was collected from an area north of U.S. 52 and located approximately 4/10 miles east of the site (see Figure 3-3). This sample was collected from a location approximately 60 feet north of U.S. 52, from an area under a tree where the soil appeared to be undisturbed.

All of the soil samples were collected at depths between 0 to 6 inches using a garden trowel. The trowel was used to collect each sample and to transfer the sample to a stainless steel bowl. The sample portions collected for volatile organic analysis were transferred directly into the sample bottles. Plant material and rocks were removed from the sampling matrix and the samples were packaged into sample bottles using stainless steel spoon.

Standard E & E decontamination procedures were adhered to during the collection of all soil samples. The procedures included the cleaning of all equipment (e.g. trowels, stainless steel spoons, and bowls) with a solution of detergent (Alconox) and distilled water, and then triple-rinsing the equipment with distilled water before the collection of each sample (E & E 1987). All soil samples were packaged and shipped according to U.S. EPA-required procedures.



SOURCE: New Boston, OH-KY Quadrangle, 7.5 Minute Series, 1961, photorevised 1975; Portsmouth KY-OH Quadrangle, 7.5 Minute Series, 1968, photorevised 1975.

SCALE

0 ½ 1 MILE

FIGURE 3-3 OFF-SITE SOIL SAMPLING LOCATION

As directed by the U.S. EPA, all soil samples were analyzed using the U.S. EPA Contract Laboratory Program (CLP).

4. ANALYSIS RESULTS

This section presents the results of the chemical analysis of FIT-collected soil samples for TCL compounds and TAL analytes. All samples were analyzed for volatile organics, semivolatile organics, pesticides, polychlorinated biphenyls (PCBs), metals, and cyanide. Complete chemical analysis results of FIT-collected soil samples are provided in Table 4-1. In addition, significant tentatively identified compunds (TICs) detected in the analysis of the FIT-collected samples are also provided in Table 4-1.

U.S. EPA CLP quantitation/detection limits used in the analysis of soil is provided in Appendix D.

The analytical data for the chemical analysis of soil samples collected for this SSI have been reviewed under the direction of U.S. EPA for validity; the review has been approved by U.S. EPA. The analytical data have also been reviewed by FIT for usability. Any additions, deletions, or changes resulting from review of the data have been incorporated in the chemical analysis results table presented in this section.

Table 4-1
RESULTS OF CHEMICAL ANALYSIS OF
FIT-COLLECTED SOIL SAMPLES

Sample Collection Information and Parameters	S1	S2	S3	S4	S5	S6	S7
Date	11/29/90	11/29/90	11/29/90	11/29/90	11/29/90	11/29/90	11/29/90
Time	1105	1110	1145	1205	1315	1400	1355
CLP Organic Traffic Report Number	BLJ85	BLJ86	BHL99	BH080	BH081	BH082	BH083
CLP Inorganic Traffic Report Number	MEHQ83	MEHQ84	MEHQ85	MEHQ86	MEHQ88	MEHF84	MEHF85
Compound Detected (values in ug/kg)							
Volatile Organics							
acetone	—	—	7 J	—	—	—	10 J
toluene	—	5 J	10	—	5 J	4 J	—
Semivolatile Organics							
naphthalene	—	210 J	—	—	1,400 J	800	—
2-methylnaphthalene	—	84 J	—	—	340 J	260 J	120 J
acenaphthylene	300 J	200 J	—	—	1,100 J	580	280 J
acenaphthene	—	60 J	—	—	170 J	110 J	130 J
dibenzofuran	—	120 J	—	—	680 J	390 J	170 J
fluorene	—	130 J	—	—	990 J	300 J	230 J
phenanthrene	2,900	1,300	—	—	6,500	2,400	2,000 J
anthracene	990 J	390 J	—	—	2,800	840	780 J
fluoranthene	12,000	2,600	67 J	1,700 J	14,000	4,200	5,200
pyrene	10,000 J	2,400	73 J	3,600 J	14,000	7,200	5,100
benzo[a]anthracene	4,300	1,800	—	—	8,600	3,900	3,400
chrysene	5,300	1,900	—	—	8,500	4,300	3,800
bis(2-ethylhexyl)phthalate	390 J	85 J	42 J	—	—	—	—
benzo[b]fluoranthene	5,100	2,500	—	—	7,300	5,900	2,900
benzo[k]fluoranthene	4,000	1,900	—	—	8,400	4,100	1,000 J
benzo[a]pyrene	4,700	2,200	—	—	7,700	4,500	3,600
indeno(1,2,3-cd)pyrene	—	2,200	—	—	6,200	4,100	2,800
benzo[g,h,i]perylene	2,600	1,900	—	—	5,500	4,600	2,300 J
Pesticides/PCBs							
Aldrin	—	—	—	—	27	20	—
Dieldrin	—	—	8.4 J	—	—	—	—
Endosulfan II	9.2 J	—	—	29	—	—	—
Endosulfan sulfate	—	—	—	—	130	—	—
4,4'-DDT	55 J	—	—	120 J	—	—	—
TICs+							
Benzo(b)naptho(2,1-d)thiophene,1-methyl (239-35-0)	—	—	—	—	1,000 J	—	—

— Not detected.

Table 4-1 (Cont.)

Sample Collection Information and Parameters	S1	S2	S3	S4	S5	S6	S7
Analyte Detected (values in ug/kg)							
aluminum	8,730	7,330	5,540	5,170	6,120	10,400	8,650
antimony	130 JNP	59.4 JNP	104 JNP	76.1 JNP	89.5 JNP	69.3 JNP	16.1 JNP
arsenic	22.6 JNs	10.3 JN	8.8 JN	5.3 JN	8.2 JNs	—	9.1 JNP
barium	159	88.7	94	110	127	215	41.2 B
beryllium	1.30	0.77 B	0.98 B	0.70 B	0.82 B	1.50 B	0.60 B
cadmium	9.40 JN	3.40 JN	3.10 JN	3.10 JN	3.80 JN	4.10 JN	0.53 BJN
calcium	67,800 EJ	60,900 EJ	54,200 EJ	48,700 EJ	74,100 EJ	156,000 EJ	3,780 EJ
chromium	1,090	199	398	460	783	290	16
cobalt	16.2	10.4 B	11.3	8.6 B	10.9 B	13.5 B	12.0 B
copper	755	53.6	63.8	60.1	51.7	85.6	17.4
iron	186,000	80,100	162,000	89,200	140,000	70,700	19,300
lead	401	260	257	231	245	595	41.8
magnesium	22,500	13,000	17,800	17,500	25,000	32,900	3,680
manganese	18,700	3,690	12,000	11,300	17,400	5,880	288
mercury	0.39	0.13	—	0.23	—	—	—
nickel	93.9	39.0	58.4	33.7	32.4	50.4	21.1
potassium	646 B	980 B	486 B	597 B	608 B	1,630 B	1,830
selenium	1.4 s	—	1.7 s	—	1.1 B	2.8 JN	—
silver	21.3 B	5.1 J	18.1 B	4.3 J	4.9 J	4.2 BJ	1.8 BJ
sodium	461 B	217 B	330 B	445 B	472 B	578 B	178 B
vanadium	439	64.5	136	187	229	138	20.4
zinc	1,040 EJ	1,280 EJ	902 EJ	407 EJ	623 EJ	883 EJ	90.8 EJ
cyanide	3.3	4.0	8.1	2.2	13.3	6.2	—

— Not detected.

COMPOUND QUALIFIER	DEFINITION	INTERPRETATION
J	Indicates an estimated value.	Compound value may be semiquantitative.

ANALYTE QUALIFIERS	DEFINITION	INTERPRETATION
E	Estimated or not reported due to interference. See laboratory narrative.	Analyte or element was not detected, or value may be semiquantitative.
S	Analysis by Method of Standard Additions.	Value is quantitative.
N	Spike recoveries outside QC protocols, which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be quantitative or semiquantitative.
B	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
J	Value is above CRDL and is an estimated value because of a QC protocol.	Value may be semiquantitative.
W	Post-digestion spike for furnace AA analysis is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance.	Value may be semiquantitative.

5. DISCUSSION OF MIGRATION PATHWAYS

5.1 INTRODUCTION

This section presents discussions of data and information pertaining to potential migration pathways and targets of TCL compounds and TAL analytes that are possibly attributable to the EDS site.

The five migration pathways of concern discussed are groundwater, surface water, air, fire and explosion, and direct contact.

5.2 GROUNDWATER

In accordance with the U.S. EPA-approved work plan, groundwater samples were not collected during the SSI of the EDS site. The soil samples collected during the SSI will be used to assist in determining the potential for TCL compounds and TAL analytes to migrate from the site into the groundwater in the area of the site.

The results of the samples collected at the EDS site indicated that TCL compounds and TAL analytes were present in the on-site soil samples at concentrations above the levels detected in the potential background sample. Among the TCL compounds detected were benzo(k)fluoranthene (8,400 ug/kg), naphthalene (1,400J ug/kg), and Endosulfan sulfate (130 ug/kg), detected in soil sample S5, and 4,4'-DDT (120J ug/kg in soil sample S4) (see Table 4-1 for complete soil sampling results and the definitions of result qualifiers). The TCL compounds were detected in soil samples collected from the slag around the plant building and the slag piles in the southeastern of the site.

Also detected at concentrations above the background level were the TAL analytes chromium (1,040 mg/kg), copper (755 mg/kg), and mercury

(0.33 mg/kg), detected in soil sample S1, cyanide (13.3 mg/kg), in soil sample S5, and lead (566 mg/kg) in soil sample S6. TAL anlaytes were detected in soil samples collected from areas where scrap and slag had been piled in the northern section of the site, the slag piles in the southeastern portion of the site, and from the embankment.

Groundwater samples were not collected during the SSI; therefore there is no evidence that TCL compounds and TAL analytes have migrated into the groundwater in the area of the site. The TCL compounds and TAL analytes detected in the on-site soil samples may be attributable to the on-site activities conducted by Empire-Detroit Steel. The TCL compound naphthalene and the TAL analytes chromium, copper, mercury, cyanide, and lead were detected in the on-site soil samples; these substances are commonly found in waste byproducts of steel production and coking operations, and may be present on-site due to slag dumping conducted by Empire-Detroit Steel (U.S. EPA 1980).

A potential exists for TCL compounds and TAL anlaytes detected in the on-site soil samples to migrate into groundwater in the area of the site, based on the following information.

- TCL compounds and TAL analytes were detected in soil samples collected from locations near the on-site slag piles.
- FIT did not observe any engineered liners underlying the piles and FIT file information contains no information that engineered liners have been placed beneath the slag piles.
- FIT observed water seeping from the ground at various on-site location indicating that the water table underlying the site may be very shallow, thus enabling TCL compounds and TAL analytes to migrate into groundwater.

The potential for TCL compunds and TAL analytes to migrate into groundwater in the area of the site is also based on the geology of the area. The EDS site is located in an unglaciated area in southern Ohio (United States Geological Survey [USGS] 1961).

Based on well logs of the area of the site, the surficial soils at the EDS site have been formed by weathering of the bedrock materials (see Appendix E). The soils are dominated by clay, with some silt. The soil and weathered bedrock extend to a depth of approximately 20 feet and are not used as a groundwater resource in the area of the EDS site. Underlying the weathered materials is bedrock comprised of Mississippian-age interbedded layers of shale and sandstone (Ohio

Department of Natural Resources [ODNR] 1962 and 1981). The interbedded layers are typically 20 to 50 feet thick, with the shale layers usually thicker than the sandstone layers. The bedrock is a poor source of groundwater in the area of the site and water yields are typically less than 5 gallons per minute (gpm) (ODNR 1962).

The areas south of U.S. Route 52 are characterized by a thin deposit of sand and clay which overlie thick deposits of sand and gravel. These areas were formed by the deposition of flood-carried materials in the Ohio River valley. These deposits border the Ohio River and are more than 100 feet thick. The sand and gravel are very permeable and can provide water yields up to 500 gpm (ODNR 1962).

The other distinct geologic area within a 3-mile radius of the site is found along Munn Run (approximately 1 mile west of the site) and the Little Scioto River valley (approximately 1 mile east of the site). These are preglacial river valleys that were filled in by glacial outwash materials. The deposits are generally comprised of fine-grained materials, such as clay and silt, but thin beds of sand and gravel may also be present. Bedrock is present at shallow depths in this area, approximately 18 to 25 feet. The bedrock, comprised of interbedded sandstones and shales, is the primary water-bearing deposit. Most wells in the area are drilled into sandstone layers within the bedrock. However, some wells, located near the Little Scioto River, are drilled into sand and gravel beds of the outwash (ODNR 1962).

The aquifer of concern (AOC) is the area within the outwash-filled preglacial valley areas. The only groundwater users within a 3-mile radius of the EDS site reside in this area. The outwash AOC lies at an approximate depth of 30 feet. The depth to groundwater is probably shallower, due to the presence of perched water lenses in the clay of the upper materials. The perched water lenses are hydraulically connected to the AOC since they lie within the clay and silt materials that overlie the sand and gravel outwash materials. The clay materials will retard, but not prevent, the downard migration of water from the ground surface and the perched lenses.

The topography of the area in the vicinity of the site indicates that groundwater probably flows south-southwest, toward the Ohio River. Because the EDS site lies at a higher elevation and is covered by

vegetation, it is probably a groundwater recharge location for the surrounding area. Groundwater within a 3-mile radius of the site probably discharges into the Ohio River. The river also forms a groundwater divide between Ohio areas and Kentucky within a 3-mile radius of the site. The regional groundwater flow, within the deeper bedrock layers, is probably unaffected by the presence of the Ohio River.

Approximately 2,524 persons residing within a 3-mile radius of the site use private residential wells as their source of drinking water. These residents are located outside the area served by municipal water systems. This population count was determined by consulting a USGS topographic map for a house count of residences located within the 3-mile radius of the site, but outside the municipal service areas (USGS 1961, 1961a, 1961b, and 1968). The total of 908 houses was multiplied by the Scioto County persons-per-household average of 2.78 (United States Bureau of the Census 1988). Only those persons obtaining their drinking water from private wells can be potentially affected by TCL compounds and TAL analytes detected at the site. The closest private residential well is located 9/10 miles from the site.

Two municipal water systems supply those residents living within a 3-mile radius of the EDS site. Residents supplied by these systems are not potentially affected by TCL compounds and TAL analytes that could migrate into groundwater because both systems are supplied by a surface water intake. One of these municipal water supply systems, the Portsmouth Water Department (PWD) serves Eden Park, Highland Bend, New Boston, Portsmouth, Sciotoville, and Wheelerburg. PWD obtains water from an intake on the Ohio River (Howard 1990, 1990a). The other municipal system, the Scioto Water Company (SWC) supplies water to the Swauger Valley and Twin Valley areas. SWC purchases its water from PWD (Howard 1990a).

5.3 SURFACE WATER

Four rivers are located within a 3-mile radius of the EDS site. Three of the rivers (Bonser Run, Swauger Valley Run, and the Little Scioto River) are separated from the site by hilly areas of higher elevation, thus eliminating the potential for surface water runoff from

the site to migrate into these rivers. The Ohio River is located approximately 2/10 miles south of the site. U.S. Route 52 is located between the EDS site and the Ohio River, and acts as a barrier that prevents surface water runoff from migrating from the site into the river. The underpass, which leads from the site to the industrial area south of Route 52, also serves to prevent runoff from reaching the river. FIT did not observe any surface water migration from the underpass.

However, the active area of the site is located in an area that is at an elevation approximately 60 feet above the Ohio River. Runoff flows from the site to areas located within a 500-year flood plain of the Ohio River (Federal Emergency Management Agency 1983). In the event of a flood, TCL compounds and TAL analytes could migrate from the site into the Ohio River and be transported to other flooded area.

The PWP and SWC municipal water systems supply many of the residents living within a 3-mile radius of the site with drinking water. Both systems obtain water from the PWD intake on the Ohio River. The intake is located approximately 3,000 feet southwest of the site, approximately 2,000 feet west (i.e, downstream) of the location where TCL compounds and TAL analytes being transported from the EDS site by floodwaters would enter the Ohio River (U.S. EPA 1987). Approximately 50,000 persons receive their drinking water from PWD and SWC municipal systems. In the event of a flood, these persons would be potential targets for TCL compounds and TAL analytes from the EDS site migrating into surface water in the area.

No wetland areas are located within a 1-mile radius to the EDS site (USGS 1961, 1968). The pink pearly mussel, a federally-designated endangered species, inhabits the Ohio River and, therefore, may be located within a 1-mile radius of the site (U.S. Fish and Wildlife Service [no date]).

5.4 AIR

A release of TCL compounds or TAL analytes to the air was not documented during the SSI of the EDS site. During the reconnaissance inspection, FIT site-entry equipment (radiation monitor, organic vapor analyzer, oxygen meter, explosimeter, and hydrogen cyanide detection

tube) did not detect levels that deviated from background concentrations at the site (E & E 1987). In accordance with the U.S. EPA-approved work plan, no quantitative air sampling was conducted by FIT.

Based on FIT observations and the site-entry equipment, a potential does exist for TCL compounds and TAL analytes to migrate off-site via windblown particulates. This conclusion is also based on the following information.

- o FIT observed uncovered piles of slag at the site.
- o TCL compounds and TAL analytes were detected in soil samples collectd from the slag piles.
- o The slag is in particulate form.

Approximately 5,293 persons residing within a 4-mile radius of the EDS site can be affected by TCL compounds and TAL analytes migrating via windblown particulates. This population was calculated in the same manner described in Section 5.2, but the following additions. A house count of residences in located in Kentucky, but within a 4-mile radius of the site, was conducted; the number of residences (562) was multiplied by the Greenup County population-per-household of 3.01 persons (U.S. Bureau of the Census 1988). Also, an area of Portsmouth, Ohio, (located west of the site), measuring approximately 3 3/4 square mile was multiplied by the Portsmouth population density of 2,337 persons-per-square mile to obtain the population within the Portsmouth city limits that lies within a 4-mile radius of the site. These populations were added together to obtain the total population potentially affected by windblown migration of TCL compounds and TAL analytes from the site.

5.5 FIRE AND EXPLOSION

According to federal, state, and local file information reviewed by FIT, the site representatives inteview, and New Boston Fire Chief Richard Mershon, no incidents of fire or explosion at the EDS site have been documented (Cunningham 1990; Mershon 1990). According to FIT observations and site-entry equipment readings, no apparent potential for fire or explosion existed at the EDS site ast the time of the SSI.

5.6 DIRECT CONTACT

According to federal, state, and local file information reviewed by FIT, observations made by FIT during the SSI, and the interview with a site representative, no incidents of direct contact with TCL compounds and TAL analytes at the EDS site have been doumented (Cunningham 1990).

A potential exists for the public and employees to come into contact with TCL compounds and TAL analytes detected in the on-site soil samples, based on the following information.

- Although a security guard is on-site at all times, the site is not fenced.
- TCL compounds and TAL analytes were detected in surface soil samples collected from on-site areas.
- Uncovered piles of slag and scrap metal were observed on-site.

The population within a 1-mile radius of the site potentially affected through direct contact with TCL compounds and TAL analytes at the site is 695 persons. This population was calculated by counting houses within a 1-mile radius of the site on a USGS topographic map (USGS 1961, 1961a, 1961b, and 1988), and multiplying this number by a persons-per-household value of 2.78 (U.S. Bureau of the Census 1988). In addition, four employees work on-site (Cunningham 1990).

6. REFERENCES

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APPENDIX A

SITE 4-MILE RADIUS MAP

SDMS US EPA Region V

Imagery Insert Form

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SITE 4-MILE RADIUS MAP

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APPENDIX B

U.S. EPA FORM 2070-13

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 1 - SITE LOCATION AND INSPECTION INFORMATION

EPA

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
OH	D054022900

II. SITE NAME AND LOCATION

01 SITE NAME (Legal, common, or descriptive name of site)	02 STREET, ROUTE NO., OR SPECIFIC LOCATION IDENTIFIER
Empire Detroit Steel Div Fox Hollow	3879 Rhodes Avenue

03 CITY	04 STATE	05 ZIP CODE	06 COUNTY	07 COUNTY CODE	08 CONG. DIST
New Boston	OH	45662	Scioto	145	06

09 COORDINATES	10 TYPE OF OWNERSHIP (Check one)
38° 43' 32.0" LATITUDE; 082° 54' 18.0" LONGITUDE	■ A. PRIVATE ☐ B. FEDERAL ☐ C. STATE ☐ D. COUNTY ☐ E. MUNICIPAL ☐ F. OTHER ☐ G. UNKNOWN

III. INSPECTION INFORMATION

01 DATE OF INSPECTION	02 SITE STATUS	03 YEARS OF OPERATION
11, 26, 90 (MONTH DAY YEAR)	■ ACTIVE ☐ INACTIVE	~ 1942 (BEGINNING YEAR) PRESENT (ENDING YEAR) ☐ UNKNOWN

04 AGENCY PERFORMING INSPECTION (Check all that apply)

☐ A. EPA ■ B. EPA CONTRACTOR C.C. Johnson & Malhotra, P.C. (Name of firm) ☐ C. MUNICIPAL ☐ D. MUNICIPAL CONTRACTOR _____ (Name of firm)

☐ E. STATE ☐ F. STATE CONTRACTOR _____ (Name of firm) ☐ G. OTHER _____ (Specify)

05 CHIEF INSPECTOR	06 TITLE	07 ORGANIZATION	08 TELEPHONE NO.
Nakid Brown	Geologist	CCJM	(312) 621-3944
09 OTHER INSPECTORS	10 TITLE	11 ORGANIZATION	12 TELEPHONE NO.
Mary Tierney	Biologist	E&E	(312) 663-9415
Michael Dieckhaus	Biologist	E&E	(312) 663-9415
Debbie Epstein	Civil Engineer	E&E	(312) 663-9415
Mike Duet	Environmental Scientist	CCJM	(312) 621-3944
			( )

13 SITE REPRESENTATIVES INTERVIEWED	14 TITLE	15 ADDRESS	16 TELEPHONE NO
Karl Cunningham	Owner	(Cunningham Materials Inc.) Wheelersburg, Ohio	(614) 574-6184
			( )
			( )
			( )
			( )
			( )

17 ACCESS GAINED BY (Check one)	18 TIME OF INSPECTION	19 WEATHER CONDITIONS
■ PERMISSION ☐ WARRANT	915	Sunny, clear, approximately 40°F

IV. INFORMATION AVAILABLE FROM

01 CONTACT	02 OF (Agency/Organization)	03 TELEPHONE NO.
Brian Blair	Southeast District Office, OEPA	(614) 385-8501

04 PERSON RESPONSIBLE FOR SITE INSPECTION FORM	05 AGENCY	06 ORGANIZATION	07 TELEPHONE NO.	08 DATE
Mike Duet	U.S. EPA	CCJM	(312) 621-3944	04, 29, 91 (MONTH DAY YEAR)

EPA FORM 2070-13 (7-81)

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 2 - WASTE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
OH	D054022900

II. WASTE STATES, QUANTITIES, AND CHARACTERISTICS

01 PHYSICAL STATES (Check all that apply)

- ■ A. SOLID
- ■ B. POWDER, FINES
- ■ C. SLUDGE
- □ D. OTHER (Specify)
- □ E. SLURRY
- ■ F. LIQUID
- □ G. GAS

02 WASTE QUANTITY AT SITE (Measures of waste quantities must be independent)

TONS: _____
CUBIC YARDS: UNKNOWN
NO. OF DRUMS: _____

03 WASTE CHARACTERISTICS (Check all that apply)

- ■ A. TOXIC
- □ B. CORROSIVE
- □ C. RADIOACTIVE
- ■ D. PERSISTENT
- □ E. SOLUBLE
- □ F. INFECTIOUS
- □ G. FLAMMABLE
- □ H. IGNITABLE
- □ I. HIGHLY VOLATILE
- □ J. EXPLOSIVE
- □ K. REACTIVE
- □ L. INCOMPATIBLE
- □ M. NOT APPLICABLE

III. WASTE TYPE

CATEGORY	SUBSTANCE NAME	01 GROSS AMOUNT	02 UNIT OF MEASURE	03 COMMENTS
SLU	SLUDGE			
OLW	OILY WASTE			WASTE TYPES LISTED
SOL	SOLVENTS	UNKNOWN	UNKNOWN	ARE DERIVED FROM FIT SOIL
PSD	PESTICIDES	UNKNOWN	UNKNOWN	SAMPLING ANALYSIS RESULTS.
OCC	OTHER ORGANIC CHEMICALS	UNKNOWN	UNKNOWN	SEE TABLE 4-1 FOR COMPLETE
IOC	INORGANIC CHEMICALS	UNKNOWN	UNKNOWN	ANALYSIS INFORMATION.
ACD	ACIDS			
BAS	BASES			
MES	HEAVY METALS	UNKNOWN	UNKNOWN	

IV. HAZARDOUS SUBSTANCES (See Appendix for most frequently cited CAS Numbers)

01 CATEGORY	02 SUBSTANCE NAME	03 CAS NUMBER	04 STORAGE/DISPOSAL METHOD	05 CONCENTRATION	06 MEASURE OF CONCENTRATION
	SEE TABLE 4-1				
	FOR INFORMATION.				

V. FEEDSTOCKS (See Appendix for CAS Numbers)

CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER	CATEGORY	01 FEEDSTOCK NAME	02 CAS NUMBER
FDS	NONE		FDS		
FDS			FDS		
FDS			FDS		
FDS			FDS		

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

FIT, 1991, SSI REPORT - EDS SITE.
FIT, 1990, SAMPLE ANALYSIS DATA - EDS SITE.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION

01 STATE: OH | 02 SITE NUMBER: D054022900

II. HAZARDOUS CONDITIONS AND INCIDENTS

01 ■ A. GROUNDWATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) ■ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 2,524
04 NARRATIVE DESCRIPTION: SEE SECTION 5.2 IN NARRATIVE FOR INFORMATION

01 ■ B. SURFACE WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) ■ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 50,000
04 NARRATIVE DESCRIPTION: SEE SECTION 5.3 IN NARRATIVE FOR INFORMATION.

01 ■ C. CONTAMINATION OF AIR — 02 ☐ OBSERVED (DATE: _____) ■ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 15,293
04 NARRATIVE DESCRIPTION: SEE SECTION 5.4 IN NARRATIVE FOR INFORMATION.

01 ☐ D. FIRE/EXPLOSIVE CONDITIONS — 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: Ø
04 NARRATIVE DESCRIPTION: SEE SECTION 5.5 IN NARRATIVE FOR INFORMATION.

01 ■ E. DIRECT CONTACT — 02 ☐ OBSERVED (DATE: _____) ■ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 695
04 NARRATIVE DESCRIPTION: SEE SECTION 5.6 IN NARRATIVE FOR INFORMATION.

01 ■ F. CONTAMINATION OF SOIL — 02 ■ OBSERVED (DATE: 11/26/90) ☐ POTENTIAL ☐ ALLEGED
03 AREA POTENTIALLY AFFECTED: 20 (Acres)
04 NARRATIVE DESCRIPTION: SEE SECTIONS 3, 4, AND 5 IN NARRATIVE FOR INFORMATION.

01 ■ G. DRINKING WATER CONTAMINATION — 02 ☐ OBSERVED (DATE: _____) ■ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 52,524
04 NARRATIVE DESCRIPTION: SEE SECTIONS 5.2 AND 5.3 IN NARRATIVE FOR DETAILS.

01 ■ H. WORKER EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) ■ POTENTIAL ☐ ALLEGED
03 WORKERS POTENTIALLY AFFECTED: 4
04 NARRATIVE DESCRIPTION: SEE SECTION 5.6 IN NARRATIVE FOR INFORMATION.

01 ■ I. POPULATION EXPOSURE/INJURY — 02 ☐ OBSERVED (DATE: _____) ■ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 52,524
04 NARRATIVE DESCRIPTION: SEE SECTION 5 IN NARRATIVE FOR INFORMATION.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 3 - DESCRIPTION OF HAZARDOUS CONDITIONS AND INCIDENTS

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
OH	D054022900

II. HAZARDOUS CONDITIONS AND INCIDENTS (Continued)

01 ■ J. DAMAGE TO FLORA 02 ☐ OBSERVED (DATE: _____) ■ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION: ALTHOUGH NO FLORA DAMAGE WAS OBSERVED BY FIT AND NONE HAS BEEN REPORTED, THERE IS A POTENTIAL FOR DAMAGE BECAUSE TCL COMPOUNDS AND TAL ANALYTES WERE DETECTED IN ON-SITE SOIL SAMPLES.

01 ■ K. DAMAGE TO FAUNA 02 ☐ OBSERVED (DATE: _____) ■ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION (Include name(s) of species): ALTHOUGH NO FAUNA DAMAGE WAS OBSERVED BY FIT AND NONE HAS BEEN REPORTED, THERE IS A POTENTIAL FOR DAMAGE BECAUSE TCL COMPOUNDS AND TAL ANALYTES WERE DETECTED IN ON-SITE SOIL SAMPLES.

01 ■ L. CONTAMINATION OF FOOD CHAIN 02 ☐ OBSERVED (DATE: _____) ■ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION: THERE HAVE BEEN NO REPORTS OF FOOD CHAIN CONTAMINATION AND NONE WAS OBSERVED BY FIT. HOWEVER, THERE IS A POTENTIAL FOR FOOD CHAIN CONTAMINATION SINCE TCL COMPOUNDS AND TAL ANALYTES WERE DETECTED IN THE ON-SITE SOIL SAMPLES.

01 ■ M. UNSTABLE CONTAINMENT OF WASTES (Spills/Runoff/Standing liquids, Leaking drums) 02 ■ OBSERVED (DATE: 11/26/90) ☐ POTENTIAL ☐ ALLEGED
03 POPULATION POTENTIALLY AFFECTED: 52,524 04 NARRATIVE DESCRIPTION: SEE SECTIONS 3, 4, AND 5 IN NARRATIVE FOR INFORMATION

01 ■ N. DAMAGE TO OFFSITE PROPERTY 02 ☐ OBSERVED (DATE: _____) ■ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION: NONE WAS OBSERVED BY FIT AND NONE HAS BEEN REPORTED. HOWEVER, RUNOFF FROM THE SITE DOES ENTER OFF-SITE PROPERTY, THUS THERE IS A POTENTIAL FOR DAMAGE TO OFFSITE PROPERTY.

01 ☐ O. CONTAMINATION OF SEWERS, STORM DRAINS, WWTPs 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION: NONE HAS BEEN REPORTED AND NONE WAS OBSERVED BY FIT.

01 ☐ P. ILLEGAL/UNAUTHORIZED DUMPING 02 ☐ OBSERVED (DATE: _____) ☐ POTENTIAL ☐ ALLEGED
04 NARRATIVE DESCRIPTION: NONE HAS BEEN REPORTED AND NONE WAS OBSERVED BY FIT.

05 DESCRIPTION OF ANY OTHER KNOWN, POTENTIAL, OR ALLEGED HAZARDS

SEE SECTIONS 3, 4, AND 5 IN NARRATIVE FOR INFORMATION.

III. TOTAL POPULATION POTENTIALLY AFFECTED: 52,524

IV. COMMENTS

NONE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

FIT, 1991, SSI REPORT- EDS SITE.
FIT, 1990, SAMPLE ANALYSIS DATA- EDS SITE.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION
PART 4 - PERMIT AND DESCRIPTIVE INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
OH	D054022900

II. PERMIT INFORMATION

01 TYPE OF PERMIT ISSUED (Check all that apply)	02 PERMIT NUMBER	03 DATE ISSUED	04 EXPIRATION DATE	05 COMMENTS
☐ A. NPDES				
☐ B. UIC				
☐ C. AIR				
☐ D. RCRA				
☐ E. RCRA INTERIM STATUS				
☐ F. SPCC PLAN				
☐ G. STATE (Specify)				
☐ H. LOCAL (Specify)				
☐ I. OTHER (Specify)				
■ J. NONE				

III. SITE DESCRIPTION

01 STORAGE/DISPOSAL (Check all that apply)	02 AMOUNT	03 UNIT OF MEASURE
☐ A. SURFACE IMPOUNDMENT		
■ B. PILES	UNKNOWN	UNKNOWN
☐ C. DRUMS, ABOVE GROUND		
■ D. TANK, ABOVE GROUND	6,000	GALLONS
☐ E. TANK, BELOW GROUND		
☐ F. LANDFILL		
☐ G. LANDFARM		
☐ H. OPEN DUMP		
☐ I. OTHER (Specify)		

04 TREATMENT (Check all that apply)

- ☐ A. INCINERATION
- ☐ B. UNDERGROUND INJECTION
- ☐ C. CHEMICAL/PHYSICAL
- ☐ D. BIOLOGICAL
- ☐ E. WASTE OIL PROCESSING
- ☐ F. SOLVENT RECOVERY
- ■ G. OTHER RECYCLING/RECOVERY
- ☐ H. OTHER (Specify)

05 OTHER

■ A. BUILDINGS ON SITE: 2

06 AREA OF SITE

72 (Acres)

07 COMMENTS

SEE SECTIONS 2 AND 3 IN NARRATIVE FOR INFORMATION.

IV. CONTAINMENT

01 CONTAINMENT OF WASTES (Check one)

☐ A. ADEQUATE, SECURE ☐ B. MODERATE ■ C. INADEQUATE, POOR ☐ D. INSECURE, UNSOUND, DANGEROUS

02 DESCRIPTION OF DRUMS, DIKING, LINERS, BARRIERS, ETC.

SEE SECTION 3 IN NARRATIVE FOR INFORMATION.

V. ACCESSIBILITY

01 WASTE EASILY ACCESSIBLE: ■ YES ☐ NO

02 COMMENTS

SEE SECTIONS 2, 3, AND 5 IN NARRATIVE FOR INFORMATION.

VI. SOURCES OF INFORMATION (Cite specific references, e.g. state files, sample analysis, reports)

FIT, 1991, SSI REPORT - EDS SITE.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
OH	D054022900

II. DRINKING WATER SUPPLY

01 TYPE OF DRINKING SUPPLY (Check as applicable)			02 STATUS			03 DISTANCE TO SITE
	SURFACE	WELL	ENDANGERED	AFFECTED	MONITORED	
COMMUNITY	A. ■	B. ☐	A. ☐	B. ☐	C. ■	A. 0.4 (mi)
NON-COMMUNITY	C. ☐	D. ■	D. ☐	E. ☐	F. ☐ UNKNOWN	B. 0.1 (mi)

III. GROUNDWATER

01 GROUNDWATER USE IN VICINITY (Check one)

■ A. ONLY SOURCE FOR DRINKING ☐ B. DRINKING (Other sources available) ☐ C. COMMERCIAL, INDUSTRIAL, IRRIGATION (Limited other sources available) ☐ D. NOT USED, UNUSEABLE

COMMERCIAL, INDUSTRIAL, IRRIGATION (No other water sources available)

02 POPULATION SERVED BY GROUND WATER 2,524

03 DISTANCE TO NEAREST DRINKING WATER WELL 0.1 (mi)

04 DEPTH TO GROUNDWATER	05 DIRECTION OF GROUNDWATER FLOW	06 DEPTH TO AQUIFER OF CONCERN	07 POTENTIAL YIELD OF AQUIFER	08 SOLE SOURCE AQUIFER
30 (ft)	SOUTH-SOUTHWEST	30 (ft)	UNKNOWN (gpd)	☐ YES ■ NO

09 DESCRIPTION OF WELLS (Including usage, depth, and location relative to population and buildings)

SEE SECTION 5.2 IN NARRATIVE FOR INFORMATION.

10 RECHARGE AREA		11 DISCHARGE AREA	
■ YES ☐ NO	COMMENTS: SEE SECTION 5.2 IN NARRATIVE FOR INFORMATION.	☐ YES ■ NO	COMMENTS: SEE SECTION 5.2 IN NARRATIVE FOR INFORMATION.

IV. SURFACE WATER

01 SURFACE WATER USE (Check one)

■ A. RESERVOIR, RECREATION, DRINKING WATER SOURCE ☐ B. IRRIGATION, ECONOMICALLY IMPORTANT RESOURCES ☐ C. COMMERCIAL, INDUSTRIAL ☐ D. NOT CURRENTLY USED

02 AFFECTED/POTENTIALLY AFFECTED BODIES OF WATER

NAME:	AFFECTED	DISTANCE TO SITE
OHIO RIVER	☐	0.2 (mi)
	☐	(mi)
	☐	(mi)

V. DEMOGRAPHIC AND PROPERTY INFORMATION

01 TOTAL POPULATION WITHIN

ONE (1) MILE OF SITE	TWO (2) MILES OF SITE	THREE (3) MILES OF SITE
A. 695 NO. OF PERSONS	B. 1,570 NO. OF PERSONS	C. 5,297 NO. OF PERSONS

02 DISTANCE TO NEAREST POPULATION: 0.1 (mi)

03 NUMBER OF BUILDINGS WITHIN TWO (2) MILES OF SITE	04 DISTANCE TO NEAREST OFF-SITE BUILDING
1,635	0.1 (mi)

05 POPULATION WITHIN VICINITY OF SITE (Provide narrative description of nature of population within vicinity of site, e.g., rural, village, densely populated urban area)

SEE SECTION 3.3 IN NARRATIVE FOR INFORMATION.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 5 - WATER, DEMOGRAPHIC, AND ENVIRONMENTAL DATA

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
OH	D054022900

VI. ENVIRONMENTAL INFORMATION

01 PERMEABILITY OF UNSATURATED ZONE (Check one)

☐ A. $10^{-6} - 10^{-8}$ cm/sec ■ B. $10^{-4} - 10^{-6}$ cm/sec ☐ C. $10^{-4} - 10^{-3}$ cm/sec ☐ D. GREATER THAN 10^{-3} cm/sec

02 PERMEABILITY OF BEDROCK (Check one)

☐ A. IMPERMEABLE (Less than 10^{-6} cm/sec) ☐ B. RELATIVELY IMPERMEABLE ($10^{-4} - 10^{-6}$ cm/sec) ■ C. RELATIVELY PERMEABLE ($10^{-2} - 10^{-4}$ cm/sec) ☐ D. VERY PERMEABLE (Greater than 10^{-2} cm/sec)

03 DEPTH TO BEDROCK	04 DEPTH OF CONTAMINATED SOIL ZONE	05 SOIL pH	
18 (ft)	UNKNOWN (ft)	UNKNOWN	

06 NET PRECIPITATION	07 ONE YEAR 24 HOUR RAINFALL	08 SLOPE		
		SITE SLOPE	DIRECTION OF SITE SLOPE	TERRAIN AVERAGE SLOPE
+7.5 (in)	2.5 (in)	50 %	SOUTH	6 %

09 FLOOD POTENTIAL

SITE IS IN UNKNOWN YEAR FLOODPLAIN

10 NA ☐ SITE IS ON BARRIER ISLAND, COASTAL HIGH HAZARD AREA, RIVERINE FLOODWAY

11 DISTANCE TO WETLANDS (5 acre minimum)

ESTUARINE	OTHER
A. NA (mi)	B. >1 (mi)

12 DISTANCE TO CRITICAL HABITAT (of endangered species)

0.2 (mi)

ENDANGERED SPECIES: PINK PEARLY MUSSEL

13 LAND USE IN VICINITY

DISTANCE TO:

COMMERCIAL/INDUSTRIAL	RESIDENTIAL AREAS; NATIONAL/STATE PARKS, FORESTS, OR WILDLIFE RESERVES	AGRICULTURAL LANDS	
		PRIME AG LAND	AG LAND
A. 0.1 (mi)	B. 0.1 (mi)	C. UNKNOWN (mi)	D. >3 (mi)

14 DESCRIPTION OF SITE IN RELATION TO SURROUNDING TOPOGRAPHY

SEE APPENDIX A.

VII. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

FIT, 1991, SSI REPORT - EDS SITE.
U.S. DEPT. OF COMMERCE, 1963, RAINFALL FREQUENCY ATLAS OF THE U.S.
U.S. DEPT. OF COMMERCE, 1979, CLIMATIC ATLAS OF THE U.S.
USGS TOPOGRAPHIC MAPS OF THE AREA OF THE EDS SITE.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 6 - SAMPLE AND FIELD INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
OH	D059022900

II. SAMPLES TAKEN

SAMPLE TYPE	01 NUMBER OF SAMPLES TAKEN	02 SAMPLES SENT TO	03 ESTIMATED DATE RESULTS AVAILABLE
GROUNDWATER	NA		
SURFACE WATER	NA		
WASTE	NA		
AIR	NA		
RUNOFF	NA		
SPILL	NA		
SOIL	7	TCL COMPOUNDS - ECOTEK (WAMTEC) TAL ANALYTES - SWOK	CURRENTLY AVAILABLE
VEGETATION	NA		
OTHER	NA		

III. FIELD MEASUREMENTS TAKEN

01 TYPE	02 COMMENTS
OVA 128 FLAME-IONIZATION DETECTOR	NO DEVIATION FROM BACKGROUND LEVEL.
EXPLOSIMETER	NO DEVIATION FROM BACKGROUND LEVEL.
OXYGEN METER	NO DEVIATION FROM BACKGROUND LEVEL.
RADIATION MONITOR	NO DEVIATION FROM BACKGROUND LEVEL.
HYDROGEN CYANIDE MONITOR	NO DEVIATION FROM BACKGROUND LEVEL.

IV. PHOTOGRAPHS AND MAPS

01 TYPE ■ GROUND □ AERIAL

02 IN CUSTODY OF ECOLOGY & ENVIRONMENT, CHICAGO, IL
(Name of organization or individual)

03 MAPS ■ YES □ NO

04 LOCATION OF MAPS ECOLOGY & ENVIRONMENT, CHICAGO, IL

V. OTHER FIELD DATA COLLECTED (Provide narrative description)

NONE.

VI. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

FIT, 1990, SAMPLE ANALYSIS DATA - EDS SITE.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 7 - OWNER INFORMATION

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
OH	D054022900

II. CURRENT OWNER(S)

01 NAME	02 D+B NUMBER
CUNNINGHAM MATERIALS INC	UNKNOWN

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
P.O. BOX 370, HAYPORT ROAD	UNKNOWN

05 CITY	06 STATE	07 ZIP CODE
WHEELERSBURG	OH	45694

PARENT COMPANY (if applicable)

08 NAME	09 D+B NUMBER
NA	

10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

12 CITY	13 STATE	14 ZIP CODE

01 NAME	02 D+B NUMBER
NA	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 NAME	09 D+B NUMBER

10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

12 CITY	13 STATE	14 ZIP CODE

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 NAME	09 D+B NUMBER

10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

12 CITY	13 STATE	14 ZIP CODE

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 NAME	09 D+B NUMBER

10 STREET ADDRESS (P.O. Box, RFD #, etc.)	11 SIC CODE

12 CITY	13 STATE	14 ZIP CODE

III. PREVIOUS OWNER(S) (List most recent first)

01 NAME	02 D+B NUMBER
EMPIRE-DETROIT STEEL	UNKNOWN

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
3879 RHODES AVENUE	UNKNOWN

05 CITY	06 STATE	07 ZIP CODE
NEW BOSTON	OH	45662

01 NAME	02 D+B NUMBER
UNKNOWN	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

IV. REALTY OWNER(S) (If applicable; list most recent first)

01 NAME	02 D+B NUMBER
NA	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

FIT, 1991, SSI REPORT - EDS SITE.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 8 - OPERATOR INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
OH	D 054 022 900

II. CURRENT OPERATOR (Provide if different from owner)

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER

OPERATOR'S PARENT COMPANY (If applicable)

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

III. PREVIOUS OPERATOR(S) (List most recent first; provide only if different from owner)

PREVIOUS OPERATORS' PARENT COMPANIES (If applicable)

01 NAME	02 D+B NUMBER
EMPIRE-DETROIT STEEL	UNKNOWN

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE
3879 RHODES AVENUE	UNKNOWN

05 CITY	06 STATE	07 ZIP CODE
NEW BOSTON	OH	45662

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD
1942 - 1982	EMPIRE-DETROIT STEEL

10 NAME	11 D+B NUMBER
DETROIT STEEL CORPORATION	UNKNOWN

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE
UNKNOWN	UNKNOWN

14 CITY	15 STATE	16 ZIP CODE
MANSFIELD	OH	44901

01 NAME	02 D+B NUMBER
UNKNOWN	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER
UNKNOWN	

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

01 NAME	02 D+B NUMBER

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

08 YEARS OF OPERATION	09 NAME OF OWNER DURING THIS PERIOD

10 NAME	11 D+B NUMBER

12 STREET ADDRESS (P.O. Box, RFD #, etc.)	13 SIC CODE

14 CITY	15 STATE	16 ZIP CODE

IV. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

FIT, 1991, SSI REPORT - EDS SITE.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 9 - GENERATOR/TRANSPORTER INFORMATION

I. IDENTIFICATION
01 STATE: OH | 02 SITE NUMBER: D054 022 900

II. ON-SITE GENERATOR

01 NAME	02 D+B NUMBER
NA	

03 STREET ADDRESS (P.O. Box, RFD #, etc.)	04 SIC CODE

05 CITY	06 STATE	07 ZIP CODE

III. OFF-SITE GENERATOR(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
EMPIRE - DETROIT STEEL	UNKNOWN	NA	
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	**04 SIC CODE**	**03 STREET ADDRESS (P.O. Box, RFD #, etc.)**	**04 SIC CODE**
3879 RHODES AVENUE	UNKNOWN		
05 CITY	**06 STATE**	**07 ZIP CODE**	**05 CITY**	**06 STATE**	**07 ZIP CODE**
NEW BOSTON	OH	45662			

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
NA			
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	**04 SIC CODE**	**03 STREET ADDRESS (P.O. Box, RFD #, etc.)**	**04 SIC CODE**
05 CITY	**06 STATE**	**07 ZIP CODE**	**05 CITY**	**06 STATE**	**07 ZIP CODE**

IV. TRANSPORTER(S)

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
UNKNOWN	UNKNOWN		
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	**04 SIC CODE**	**03 STREET ADDRESS (P.O. Box, RFD #, etc.)**	**04 SIC CODE**
UNKNOWN	UNKNOWN		
05 CITY	**06 STATE**	**07 ZIP CODE**	**05 CITY**	**06 STATE**	**07 ZIP CODE**
UNKNOWN	UNKNOWN	UNKNOWN			

01 NAME	02 D+B NUMBER	01 NAME	02 D+B NUMBER
03 STREET ADDRESS (P.O. Box, RFD #, etc.)	**04 SIC CODE**	**03 STREET ADDRESS (P.O. Box, RFD #, etc.)**	**04 SIC CODE**
05 CITY	**06 STATE**	**07 ZIP CODE**	**05 CITY**	**06 STATE**	**07 ZIP CODE**

V. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

FIT, 1991, SSI REPORT - EOS SITE.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
OH	0054022900

II. PAST RESPONSE ACTIVITIES

01 ☐ A. WATER SUPPLY CLOSED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ B. TEMPORARY WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ C. PERMANENT WATER SUPPLY PROVIDED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ D. SPILLED MATERIAL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ E. CONTAMINATED SOIL REMOVED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ F. WASTE REPACKAGED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ G. WASTE DISPOSED ELSEWHERE — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ H. ON SITE BURIAL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ I. IN SITU CHEMICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ J. IN SITU BIOLOGICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ K. IN SITU PHYSICAL TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ L. ENCAPSULATION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ M. EMERGENCY WASTE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ N. CUTOFF WALLS — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ O. EMERGENCY DIKING/SURFACE WATER DIVERSION — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ P. CUTOFF TRENCHES/SUMP — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ Q. SUBSURFACE CUTOFF WALL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 10 - PAST RESPONSE ACTIVITIES

I. IDENTIFICATION

01 STATE	02 SITE NUMBER
OH	D054 022 900

II. PAST RESPONSE ACTIVITIES (Continued)

01 ☐ R. BARRIER WALLS CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ S. CAPPING/COVERING — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ T. BULK TANKAGE REPAIRED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ U. GROUT CURTAIN CONSTRUCTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ V. BOTTOM SEALED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ W. GAS CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ X. FIRE CONTROL — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ Y. LEACHATE TREATMENT — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ Z. AREA EVACUATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ 1. ACCESS TO SITE RESTRICTED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ 2. POPULATION RELOCATED — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

01 ☐ 3. OTHER REMEDIAL ACTIVITIES — 02 DATE _____ — 03 AGENCY _____
04 DESCRIPTION
NA

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

FIT, 1991, SSI REPORT - EDS SITE.

EPA

POTENTIAL HAZARDOUS WASTE SITE
SITE INSPECTION REPORT
PART 11 - ENFORCEMENT INFORMATION

I. IDENTIFICATION	
01 STATE	02 SITE NUMBER
OH	D054022900

II. ENFORCEMENT INFORMATION

01 PAST REGULATORY/ENFORCEMENT ACTION ☐ YES ☒ NO

02 DESCRIPTION OF FEDERAL, STATE, LOCAL REGULATORY/ENFORCEMENT ACTION

NONE.

III. SOURCES OF INFORMATION (Cite specific references, e.g., state files, sample analysis, reports)

FIT, 1991, SSI REPORT - EDS SITE.

APPENDIX C

FIT SITE PHOTOGRAPHS

FIELD PHOTOGRAPHY LOG SHEET

Photographs of soil samples S6 and S7 are not available due to film exposure problems.

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Empire Detroit Steel - Div. Fox Hollow PAGE 1 OF 13

U.S. EPA ID: OHD054022900 TDD: F05-8805-006 PAN: FOH0824SA

DATE: 11/26/90

TIME: 11 05

DIRECTION OF PHOTOGRAPH: North

WEATHER CONDITIONS: Sunny/Clear

PHOTOGRAPHED BY: Nahid Brown

SAMPLE ID (if applicable): S1

DESCRIPTION: Closeup photograph of S1 along the northern boundary of site

DATE: 11/26/90

TIME: 11 05

DIRECTION OF PHOTOGRAPH: North

WEATHER CONDITIONS: Sunny/Clear

PHOTOGRAPHED BY: Nahid Brown

SAMPLE ID (if applicable): S1

DESCRIPTION: Perspective photograph of S1 along the northern boundary of site

FIELD PHOTOGRAPHY LOGSHEET

SITE NAME: Empire Detroit Steel - Div. Foxboro PAGE 52 OF 113

U.S. EPA ID: OHD054022900 TDD: F05-8805-006 PAN: FOH08245A

DATE: 11/26/90

TIME: 11 10

DIRECTION OF PHOTOGRAPH: East

WEATHER CONDITIONS: Sunny/clear

PHOTOGRAPHED BY: Nat. d. Brown

SAMPLE ID (if applicable): S2

DESCRIPTION: Close up photograph of S2 pile of scrap metal

DATE: 11/26/90

TIME: 11 10

DIRECTION OF PHOTOGRAPH: East

WEATHER CONDITIONS: Sunny/clear

PHOTOGRAPHED BY: Nat. d. Brown

SAMPLE ID (if applicable): S2

DESCRIPTION: Perspective photograph of S2 pile of scrap metal

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Empire Detroit Steel - D-3 Fox Hollow PAGE 13 OF 43

U.S. EPA ID: OHD054022900 TDD: F05-8605-006 PAN: F04082454

DATE: 11/26/90

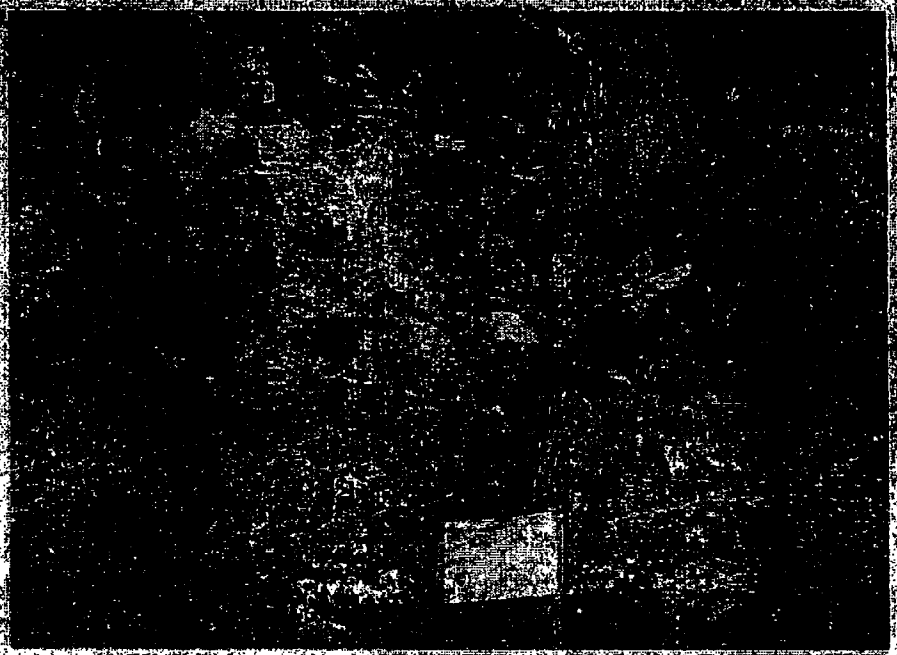
TIME: 11:45

DIRECTION OF PHOTOGRAPH: East

WEATHER CONDITIONS: Sunny/Clear

PHOTOGRAPHED BY: Nahid Brown

SAMPLE ID (If applicable): S3



DESCRIPTION: Close up photograph of S3, showing discoloration of soil and empty broken drum.

DATE: 11/26/90

TIME: 11:45

DIRECTION OF PHOTOGRAPH: East

WEATHER CONDITIONS: Sunny/Clear

PHOTOGRAPHED BY: Nahid Brown

SAMPLE ID (If applicable): S3

DESCRIPTION: Perspective photograph of S3

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Empire Detroit Steel - Div. Fox/Mill PAGE 4 OF 13

U.S. EPA ID: OHD042292900 TDD: F-05-8805-0067 PAN: FOH08245A

DATE: 11/26/90

TIME: 12 45

DIRECTION OF PHOTOGRAPH: Southeast

WEATHER CONDITIONS: Sunny/Clear

PHOTOGRAPHED BY: Nahid Brown

SAMPLE ID (if applicable): S4

DESCRIPTION: Close up photograph of S4, slag sample taken from plant operation area.

DATE: 11/26/90

TIME: 1250

DIRECTION OF PHOTOGRAPH: East

WEATHER CONDITIONS: Sunny/Clear

PHOTOGRAPHED BY: Nahid Brown

SAMPLE ID (if applicable): S4

DESCRIPTION: Perspective photograph of S4, showing plant operation. CONVEYOR BELTS ARE VISIBLE AND SIEVING EQUIPMENT IS IN CENTER OF PHOTOGRAPH.

FIELD PHOTOGRAPH LOG SHEET

SITE NAME: Empire Detroit Steel - Dewitt Hollow PAGE 5 OF 13

U.S. EPA ID: OHD054029900 TDD: F05-8805-006 PAN: FOH08245A

DATE: 11/26/90

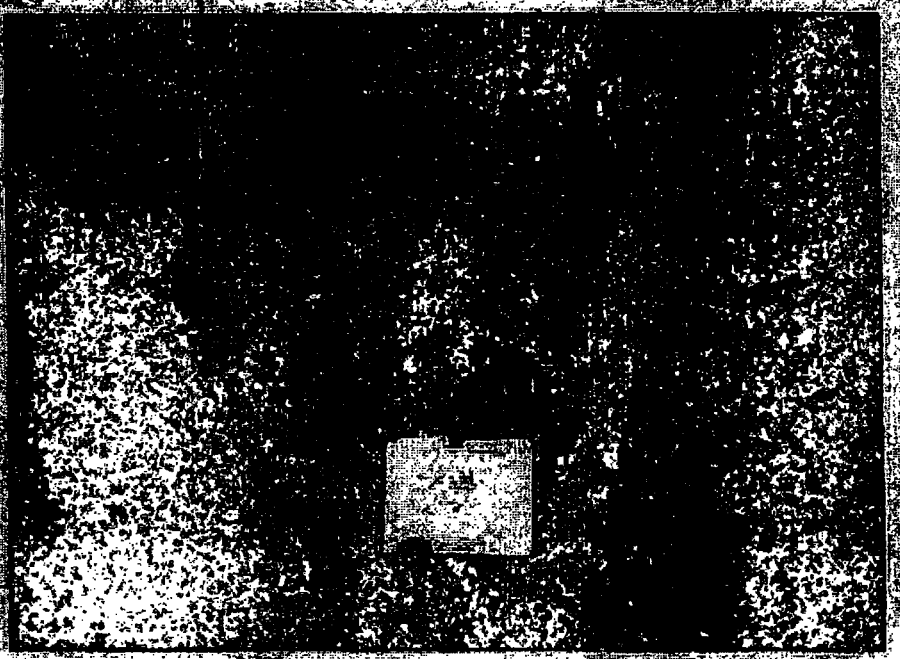
TIME: 1315

DIRECTION OF PHOTOGRAPH: Southeast

WEATHER CONDITIONS: Sunny/Clear

PHOTOGRAPHED BY: Nahid Brown

SAMPLE ID (If applicable): SS



DESCRIPTION: Closeup photograph of SS, around southern boundary of site

DATE: 11/26/90

TIME: 1315

DIRECTION OF PHOTOGRAPH: SE

WEATHER CONDITIONS: Sunny/Clear

PHOTOGRAPHED BY: Nahid Brown

SAMPLE ID (If applicable): SS

DESCRIPTION: Perspective photograph of SS, around southern boundary of site

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Empire Detroit Steel - Dow Fox Hollow PAGE 8 OF 13

U.S. EPA ID: OHD054022900 TDD: F05-8805-0067 PAN: FOH 0824SA

DATE: 11/26/96

TIME: 10:00

DIRECTION OF PHOTOGRAPH: North

WEATHER CONDITIONS: Sunny / Clear

PHOTOGRAPHED BY: Neal Brown

SAMPLE ID (if applicable):

DESCRIPTION: Pile of Steel Scrap and slag in the Northern boundary of the SITE

DATE: 11/26/96

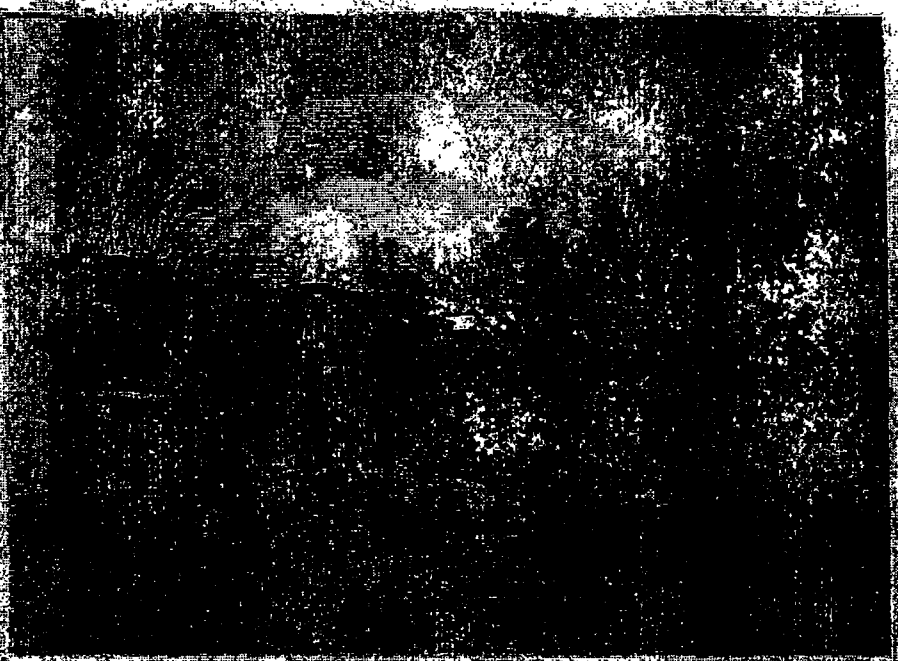
TIME: 10:05

DIRECTION OF PHOTOGRAPH: North-East

WEATHER CONDITIONS: Sunny / Clear

PHOTOGRAPHED BY: Neal Brown

SAMPLE ID (if applicable):



DESCRIPTION: Pile of steel scrap and slag in Northern boundary of the site, view from another direction

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Empire Detroit Steel - Dix Hollow PAGE 12 OF 13

U.S. EPA ID: OHD054022900 TDD: F-05-8805-006 PAN: FOH 0824SA

DATE: 11/26/90

TIME: 10 15

DIRECTION OF PHOTOGRAPH: West

WEATHER CONDITIONS: Sunny / clear

PHOTOGRAPHED BY: Nahid Brown

SAMPLE ID (If applicable):

DESCRIPTION: Construction debris / cement blocks, bricks etc

DATE: 11/26/90

TIME: 10 15

DIRECTION OF PHOTOGRAPH: West

WEATHER CONDITIONS: Sunny / clear

PHOTOGRAPHED BY: Nahid Brown

SAMPLE ID (If applicable):

DESCRIPTION: Burnt patches next to Construction debris

FIELD PHOTOGRAPH LOG SHEET

SITE NAME: Empire Detroit Steel - Div. Fox Holton PAGE: 8 OF 13

U.S. EPA ID: OHD054022900 TDD: F05-8805-006 PAN: FOH08245A

DATE: 11/26/90

TIME: 10:30

DIRECTION OF PHOTOGRAPH: East

WEATHER CONDITIONS: Sunny/clear

PHOTOGRAPHED BY: Nat d Brown

SAMPLE ID (if applicable):

DESCRIPTION: Scrap metal pile

DATE: 11/26/90

TIME: 10 40

DIRECTION OF PHOTOGRAPH: West

WEATHER CONDITIONS: Sunny/clear

PHOTOGRAPHED BY: Nat d Brown

SAMPLE ID (if applicable): N/A

DESCRIPTION: Construction debris near scrap metal pile

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Empire Detroit Steel Div./Ox Hollow PAGE: 9 OF 12

U.S. EPA ID: OHD054022900 TDD: F05-8805-006 PAN: FOH08224SA

DATE: 11/26/90

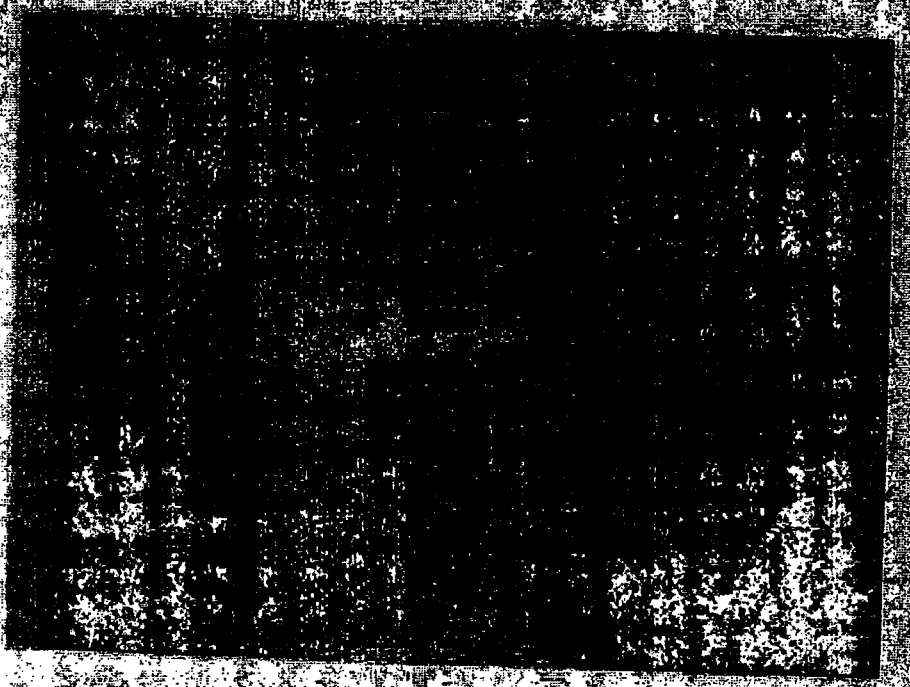
TIME: 10 50

DIRECTION OF PHOTOGRAPH: Southeast

WEATHER CONDITIONS: Sunny/clear

PHOTOGRAPHED BY: Nahid Brown

SAMPLE ID (if applicable):



DESCRIPTION: Construction debris along the eastern edge of site

DATE: 11/26/90

TIME: 10 50

DIRECTION OF PHOTOGRAPH: Southeast

WEATHER CONDITIONS: Sunny/clear

PHOTOGRAPHED BY: Nahid Brown

SAMPLE ID (if applicable):

DESCRIPTION: Perspective view of above location

FIELD PHOTOGRAPH LOG SHEET

SITE NAME: Empire Detroit Steel Div. - Fox Hill PAGE 1 OF 3

U.S. EPA ID: OHD054021760 TDD: F05-8805-0066 PAN: F-OH-0824-A

DATE: 11/26/90

TIME: 13 05

DIRECTION OF PHOTOGRAPH: North

WEATHER CONDITIONS: Sunny / Clear

PHOTOGRAPHED BY: Nabil Braun

SAMPLE ID (if applicable):

DESCRIPTION: A close view of plant operation

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Former Detrola Steel Dump - Fox Hollow PAGE: 11 OF 13

U.S. EPA ID: OHD054029500 IDD: F05-8805-006 PAN: FOH0824SA

DATE: 11/26/98

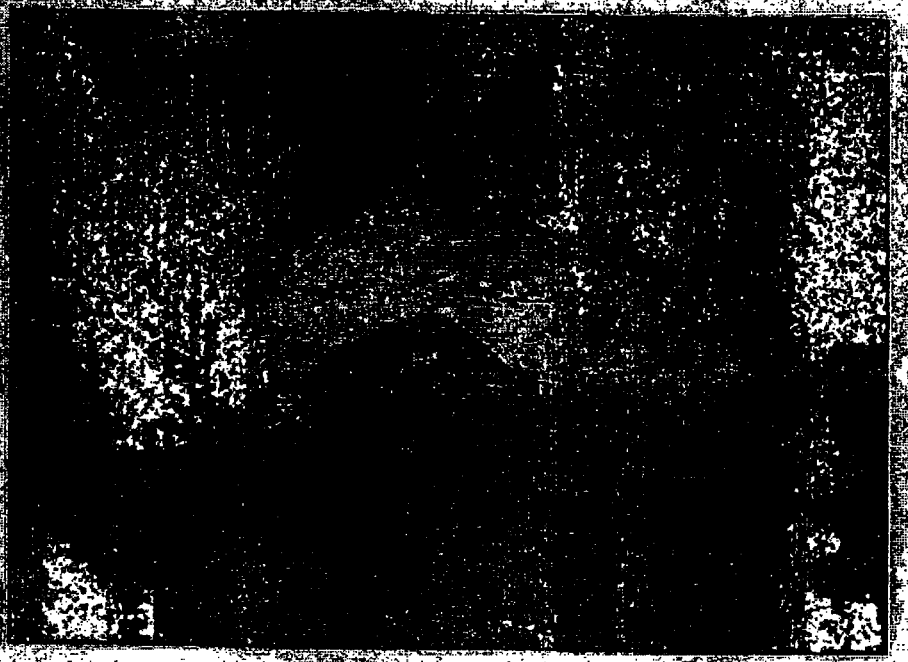
TIME: 13:32

DIRECTION OF PHOTOGRAPH: East

WEATHER CONDITIONS: Sunny/Clear

PHOTOGRAPHED BY: Nabil Bacon

SAMPLE ID (if applicable): N/A



DESCRIPTION: Shale outcrop and pile of slag

FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Empire Detroit Steel Div. of Eaton Corp. PAGE 11 OF 13

U.S. EPA ID: OHD054022900 TDD: F05-8205-006 PAN: FOH08245A

DATE: 11/26/90

TIME: 13:40

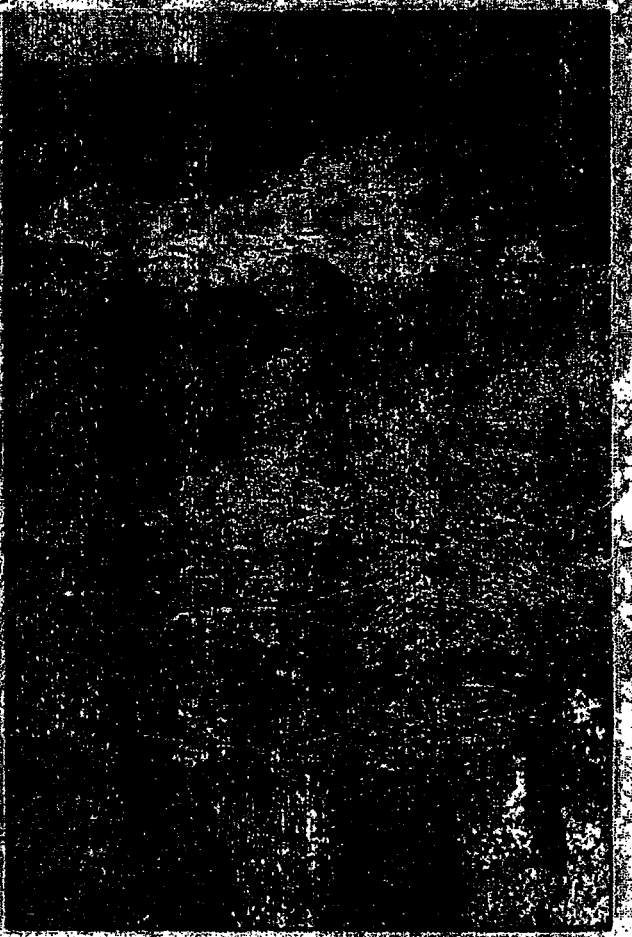
DIRECTION OF PHOTOGRAPH: NORTHEAST

WEATHER CONDITIONS: Sunny/clear

PHOTOGRAPHED BY: Nahid Brecon

SAMPLE ID (if applicable):

DESCRIPTION: Slag pile in the background and a small stream coming to surface in the southern boundary of the site.



FIELD PHOTOGRAPHY LOG SHEET

SITE NAME: Empire Detroit Steel Div. of Former Hellwood PAGE 13 OF 14

U.S. EPA ID: OHD054022500 TDD: F05-8805-0006 PAN: FOHOB2454

DATE: 11/26/90

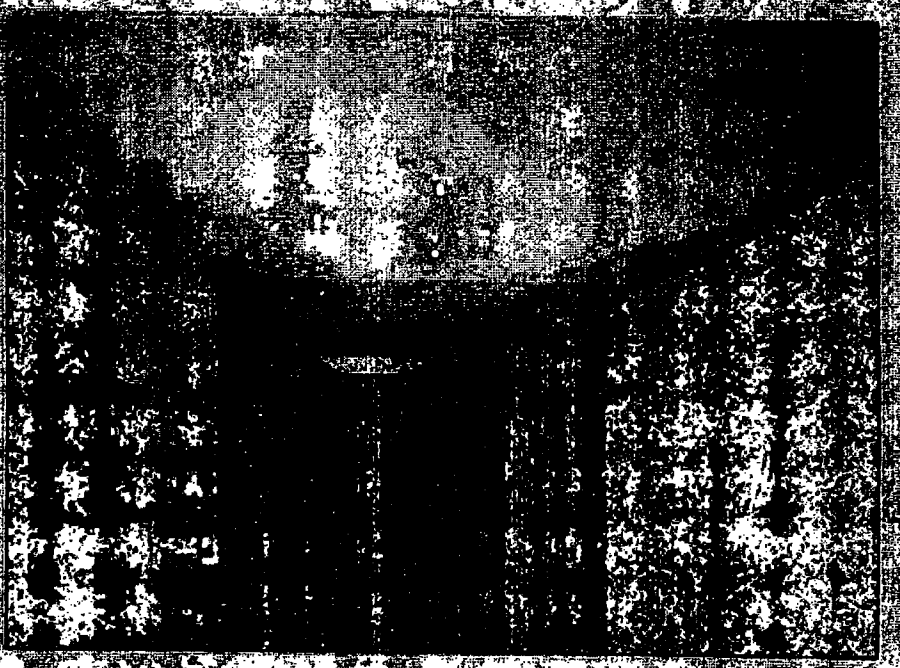
TIME: 1:10 Sam

DIRECTION OF PHOTOGRAPH: South

WEATHER CONDITIONS: Sunny/Clear

PHOTOGRAPHED BY: Nahid Bhadsavle

SAMPLE ID (if applicable):



DESCRIPTION: Ohio River in relation to Site Location. Ohio River is in background center.

APPENDIX D

U.S. EPA TARGET COMPOUND LIST AND TARGET ANALYTE LIST QUANTITATION/DETECTION LIMITS

ADDENDUM A

ROUTINE ANALYTICAL SERVICES
CONTRACT REQUIRED DETECTION AND QUANTITATION LIMITS

Contract Laboratory Program
Target Compound List
Quantitation Limits

COMPOUND	CAS #	WATER	SOIL SEDIMENT SLUDGE
Chloromethane	74-87-3	10 ug/L	10 ug/Kg
Bromomethane	74-83-9	10	10
Vinyl chloride	75-01-4	10	10
Chloroethane	75-00-3	10	10
Methylene chloride	75-09-2	5	5
Acetone	67-64-1	10	-5
Carbon disulfide	75-15-0	5	5
1,1-dichloroethene	75-35-4	5	5
1,1-dichloroethane	75-34-3	5	5
1,2-dichloroethene (total)	540-59-0	5	5
Chloroform	67-66-3	5	5
1,2-dichloroethane	107-06-2	5	5
2-butanone (MEK)	78-93-3	10	10
1,1,1-trichloroethane	71-55-6	5	5
Carbon tetrachloride	56-23-5	5	5
Vinyl acetate	108-05-4	10	10
Bromodichloromethane	75-27-4	5	5
1,2-dichloropropane	78-87-5	5	5
cis-1,3-dichloropropene	10061-01-5	5	5
Trichloroethene	79-01-6	5	5
Dibromochloromethane	124-48-1	5	5
1,1,2-trichloroethane	79-00-5	5	5
Benzene	71-43-2	5	5
Trans-1,3-dichloropropene	10061-02-6	5	5
Bromoform	75-25-2	5	5
4-Methyl-2-pentanone	108-10-1	10	10
2-Hexanone	591-78-6	10	10
Tetrachloroethene	127-18-4	5	5
Tolene	108-88-3	5	5
1,1,2,2-tetrachloroethane	79-34-5	5	5
Chlorobenzene	108-90-7	5	5
Ethyl benzene	100-41-4	5	5
Styrene	100-42-5	5	5
Xylenes (total)	1330-20-7	5	-5

Table A
Contract Laboratory Program
Target Compound List
Semivolatiles Quantitation Limits

COMPOUND	CAS #	WATER	SOIL SEDIMENT SLUDGE
Phenol	108-95-2	10 ug/L	330 ug/Kg
bis(2-Chloroethyl) ether	111-44-4	10	330
2-Chlorophenol	95-57-8	10	330
1,3-Dichlorobenzene	541-73-1	10	330
1,4-Dichlorobenzene	106-46-7	10	330
Benzyl Alcohol	100-51-6	10	330
1,2-Dichlorobenzene	95-50-1	10	330
2-Methylphenol	95-48-7	10	330
bis(2-Chloroisopropyl) ether	108-60-1	10	330
4-Methylphenol	106-44-5	10	330
N-Nitroso-di-n-dipropylamine	621-64-7	10	330
Hexachloroethane	67-72-1	10	330
Nitrobenzene	98-95-3	10	330
Isophorone	78-59-1	10	330
2-Nitrophenol	88-75-5	10	330
2,4-Dimethylphenol	105-67-9	10	330
Benzoic Acid	65-85-0	50	1600
bis(2-Chloroethoxy) methane	111-91-1	10	330
2,4-Dichlorophenol	120-83-2	10	330
1,2,4-Trichlorobenzene	120-82-1	10	330
Naphthalene	91-20-3	10	330
4-Chloroaniline	106-47-8	10	330
Hexachlorobutadiene	87-68-3	10	300
4-Chloro-3-methylphenol	59-50-7	10	330
2-Methylnaphthalene	91-57-6	10	330
Hexachlorocyclopentadiene	77-47-4	10	330
2,4,6-Trichlorophenol	88-06-2	10	330
2,4,5-Trichlorophenol	95-95-4	50	1600
2-Chloronaphthalene	91-58-7	10	330
2-Nitroaniline	88-74-4	50	1600
Dimethylphthalate	131-11-3	10	330
Acenaphthylene	208-96-8	10	330
2,6-Dinitrotoluene	606-20-2	10	330
3-Nitroaniline	99-09-2	50	1600
Acenaphthene	83-32-9	10	330
2,4-Dinitrophenol	51-28-5	50	1600
4-Nitrophenol	100-02-7	50	1600
Dibenzofuran	132-64-9	10	330
2,4-Dinitrotoluene	121-14-2	10	330
Diethylphthalate	84-66-2	10	330
4-Chlorophenyl-phenyl ether	7005-72-3	10	330

Table A
Contract Laboratory Program
Target Compound List
Semivolatiles Quantitation Limits

COMPOUND	CAS #	WATER	SOIL SLUDGE SEDIMENT
Fluorene	86-73-7	10 ug/L	330 ug/Kg
4-Nitroaniline	100-01-6	50	1600
4,6-Dinitro-2-methylphenol	534-52-1	50	1600
N-nitrosodiphenylamine	86-30-6	10	330
4-Bromophenyl-phenylether	101-55-3	10	330
Hexachlorobenzene	118-74-1	10	330
Pentachlorophenol	87-86-5	50	1600
Phenanthrene	85-01-8	10	330
Anthracene	120-12-7	10	330
Di-n-butylphthalate	84-74-2	10	330
Fluoranthene	206-44-0	10	330
Pyrene	129-00-0	10	330
Butylbenzylphthalate	85-68-7	10	330
3,3'-Dichlorobenzidine	91-94-1	20	660
Benzo(a)anthracene	56-55-3	10	330
Chrysene	218-01-9	10	330
bis(2-Ethylhexyl)phthalate	117-81-7	10	330
Di-n-octylphthalate	117-84-0	10	330
Benzo(b)fluoranthene	205-99-2	10	330
Benzo(k)fluoranthene	207-08-9	10	330
Benzo(a)pyrene	50-32-8	10	330
Indeno(1,2,3-cd)pyrene	193-39-5	10	330
Dibenz(a,h)anthracene	53-70-3	10	330
Benzo(g,h,i)perylene	191-24-2	10	330

Table A
Contract Laboratory Program
Target Compound List
Pesticide and PCB Quantitation Limits

COMPOUND	CAS #	WATER	SOIL SEDIMENT SLUDGE
alpha-BHC	319-84-6	0.05 ug/L	8 ug/Kg
beta-BHC	319-85-7	0.05	8
delta-BHC	319-86-8	0.05	8
gamma-BHC (Lindane)	58-89-9	0.05	8
Heptachlor	76-44-8	0.05	8
Aldrin	309-00-2	0.05	8
Heptachlor epoxide	1024-57-3	0.05	8
Endosulfan I	959-98-8	0.05	8
Dieldrin	60-57-1	0.10	16
4,4'-DDE	72-55-9	0.10	16
Endrin	72-20-8	0.10	16
Endosulfan II	33213-65-9	0.10	16
4,4'-DDD	72-54-8	0.10	16
Endosulfan sulfate	1031-07-8	0.10	16
4,4'-DDT	50-29-3	0.10	16
Methoxychlor (Mariate)	72-43-5	0.5	80
Endrin ketone	53494-70-5	0.10	16
alpha-Chlordane	5103-71-9	0.5	80
gamma-chlordane	5103-74-2	0.5	80
Toxaphene	8001-35-2	1.0	160
AROCLOR-1016	12674-11-2	0.5	80
AROCLOR-1221	11104-28-2	0.5	80
AROCLOR-1232	11141-16-5	0.5	80
AROCLOR-1242	53469-21-9	0.5	80
AROCLOR-1248	12672-29-6	0.5	80
AROCLOR-1254	11097-69-1	1.0	160
AROCLOR-1260	11096-82-5	1.0	160

Table A (Cont.)

CONTRACT LABORATORY PROGRAM

TARGET ANALYTE LIST (TAL)

INORGANIC DETECTION LIMITS

Compound	Procedure	Detection Limits	
		Water (µg/L)	Soil Sediment Sludge (mg/kg)
aluminum	ICP	200	40
antimony	furnace	60	2.4
arsenic	furnace	10	2
barium	ICP	200	40
beryllium	ICP	5	1
cadmium	ICP	5	1
calcium	ICP	5,000	1,000
chromium	ICP	10	2
cobalt	ICP	50	10
copper	ICP	25	5
iron	ICP	100	20
lead	furnace	5	1
magnesium	ICP	5,000	1,000
manganese	ICP	15	3
mercury	cold vapor	0.2	0.008
nickel	ICP	40	8
potassium	ICP	5,000	1,000
selenium	furnace	5	1
silver	ICP	10	2
sodium	ICP	5,000	1,000
thallium	furnace	10	2
tin	ICP	40	8
vanadium	ICP	50	10
zinc	ICP	20	4
cyanide	color	10	2

3767:1

APPENDIX E

WELL LOGS OF THE AREA OF THE SITE

WELL LOG AND DRILLING REPORT

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Columbus, Ohio

C. C. ... III

No 118139

51

County Stark Township Harrison Wayne Section of Township or Lot Number 31

Owner [redacted] Address [redacted]

Location of property

CONSTRUCTION DETAILS

Casing diameter 5 3/5 Length of casing 2440

Type of screen Length of screen

Type of pump 3/4 HP

Capacity of pump 5"

Depth of pump setting 57

PUMPING TEST

Pumping rate 50 G.P.M. Duration of test 1/2 hrs

Drawdown ft. Date

Developed capacity 500 PH

Static level—depth to water 27 ft

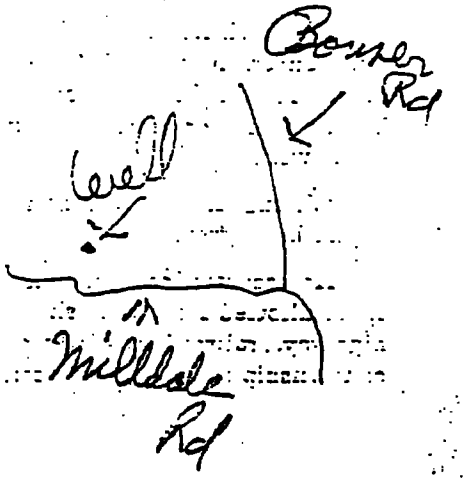
Pump installed by Owner

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Soil & Muck	0 Feet	23 Ft.
Shale	23	40
Stone	40	61
Water 40 Ft		

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm [illegible]

Address [illegible]

Date 6-26-57

Signed [illegible]

WL1

Porter Twp (1)

WELL LOG AND DRILLING REPORT

ORIGIN III 52

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Columbus, Ohio

No 169480

County Scioto Township Harrison Wayne Section of Township or Lot Number 31 Not Known

Owner [redacted] Address [redacted]

Location of property Mill Dale Road

CONSTRUCTION DETAILS

Casing diameter 5 5/8 Length of casing 19'
Type of screen None Length of screen
Type of pump
Capacity of pump
Depth of pump setting

PUMPING TEST

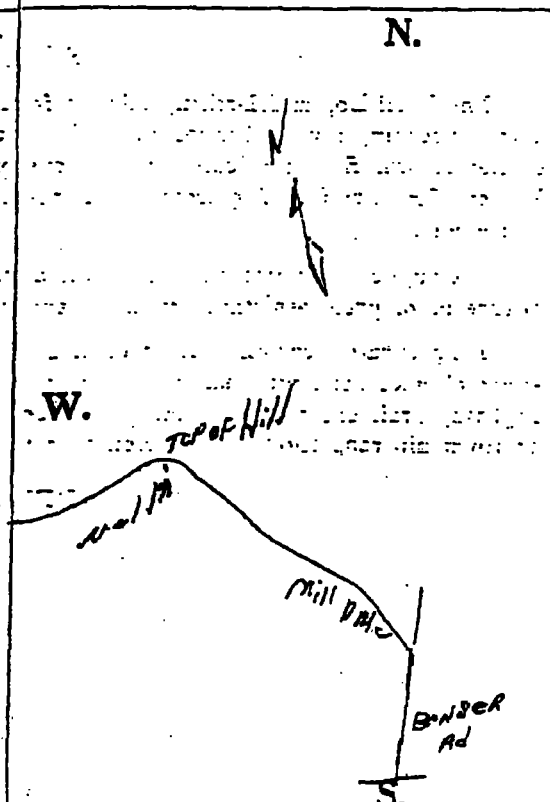
Bailing Pumping rate less than 1/4 G.P.M. Duration of test 1/2 hour
Drawdown ft. Date
Developed capacity
Static level—depth to water
Pump installed by Self

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Top Soil	0 Feet	2 Ft.
Soil	2	20.
Shale	20	100'
Less than one Gallon Per minut at 72'		

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm E.C. Hutchison Date Sept 1962
Address Circleville Ohio Signed E.C. Hutchison

WELL LOG AND DRILLING REPORT

ORIGINAL

IV 2 4

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Columbus, Ohio

No 118150

County Scioto Township [redacted] Section of Township or Lot Number Porty, Cord 8

Owner [redacted] Address [redacted]

Location of property 1½ mi E. of SR 139 on N. side of Milldale Rd

CONSTRUCTION DETAILS

Casing diameter 5 5/8 Length of casing 24 ft

Type of screen _____ Length of screen _____

Type of pump _____

Capacity of pump _____

Depth of pump setting _____

PUMPING TEST

Pumping rate 2 G.P.M. Duration of test ½ hrs

Drawdown _____ ft. Date _____

Developed capacity 2 GPM

Static level—depth to water 28 ft

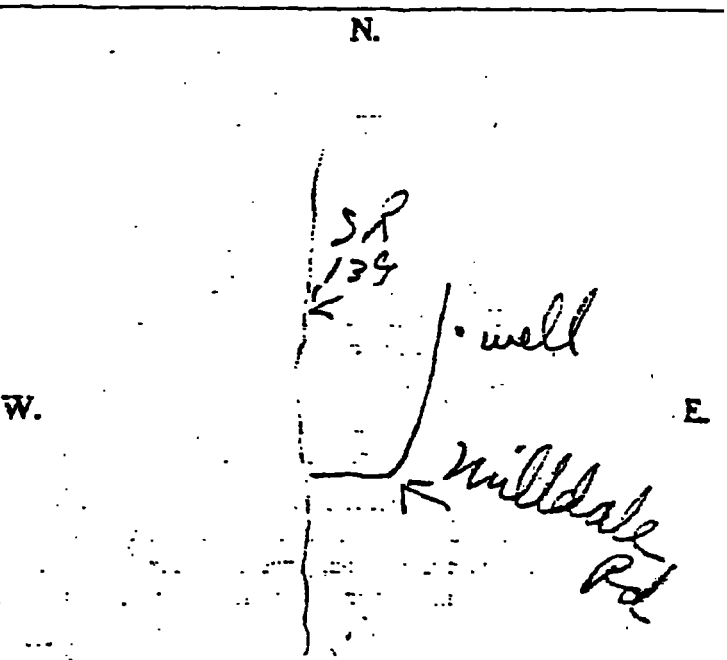
Pump installed by _____

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Soil	0 Feet	19 Ft.
Shale	19	25
Stone	25	34
Water 38		

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Walter Ruby

Address Toronto O

Date 7-22-57

Signed Walter Ruby

WL3

3

WELL LOG AND DRILLING REPORT

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus, Ohio

PLEASE USE PENCIL OR TYPEWRITER DO NOT USE INK

ORIGIN 53

No. 266937

County S Scioto Township Harrison Twp Section of Township 31

Owner [redacted] Address [redacted]

Location of property in Back of 1168 Millsdale Rd in Portsmouth

CONSTRUCTION DETAILS

Casing diameter _____ Length of casing _____
Type of screen _____ Length of screen _____
Type of pump _____
Capacity of pump _____
Depth of pump setting _____
Date of completion _____

BAILING OR PUMPING TEST

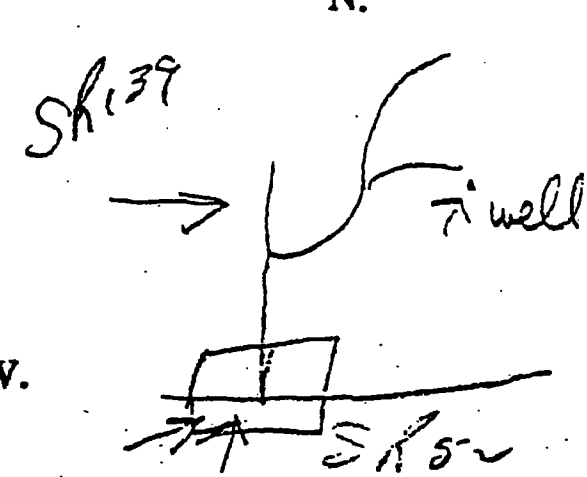
Pumping rate _____ G.P.M. Duration of test _____ hr
Drawdown _____ ft. Date _____
Developed capacity _____
Static level—depth to water _____ f
Pump installed by _____

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Soil	0 Feet	4 Ft.
Fire Clay	4	10
Red Shale	10	25'
Shale	25'	80
Stone	80	90
dry hole		

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Walter Rudy Date 6-5-52

Address Jackson, O. Signed Walter Rudy

4

ORIGIN

W L LOG AND DRILLING REPORT

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1500 Dublin Road
Columbus, Ohio

No. 224295

County Scioto Township Portsmouth Section of Township

Owner [redacted] Address [redacted]

Location of property Portsmouth O

CONSTRUCTION DETAILS

Casing diameter 5 5/16 Length of casing 19
Type of screen Length of screen
Type of pump
Capacity of pump
Depth of pump setting
Date of completion

BAILING OR PUMPING TEST

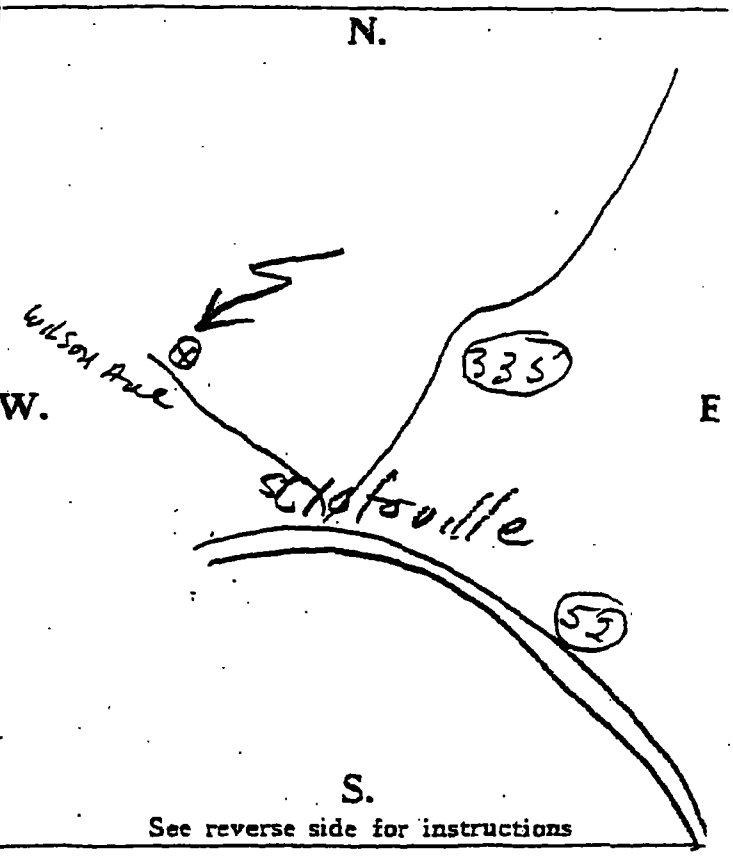
Pumping rate 3 G.P.M. Duration of test hr
Drawdown ft. Date 1-1-50
Developed capacity 3 G
Static level—depth to water 6 f
Pump installed by

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Clay & Gravel	0 Feet	18 Ft.
shale	18	-50
Water @ 26		

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Stanley G. Ruby
Address R # 2 - Franklin Ohio

Date 1-2-60
Signed Stanley Ruby

WL5

65

WELL LOG AND DRILLING REPORT

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus, Ohio

PLEASE USE PENCIL OR TYPEWRITER. DO NOT USE INK.

No. 240081

County SCIOTO Township Harrison Section of Township

Owner [redacted] Address [redacted] Sciotoville

Location of property 5181 Wilson Ave Sciotoville

CONSTRUCTION DETAILS

Casing diameter 5 5/8 Length of casing 28'
Type of screen Length of screen
Type of pump
Capacity of pump
Depth of pump setting
Date of completion

BAILING OR PUMPING TEST

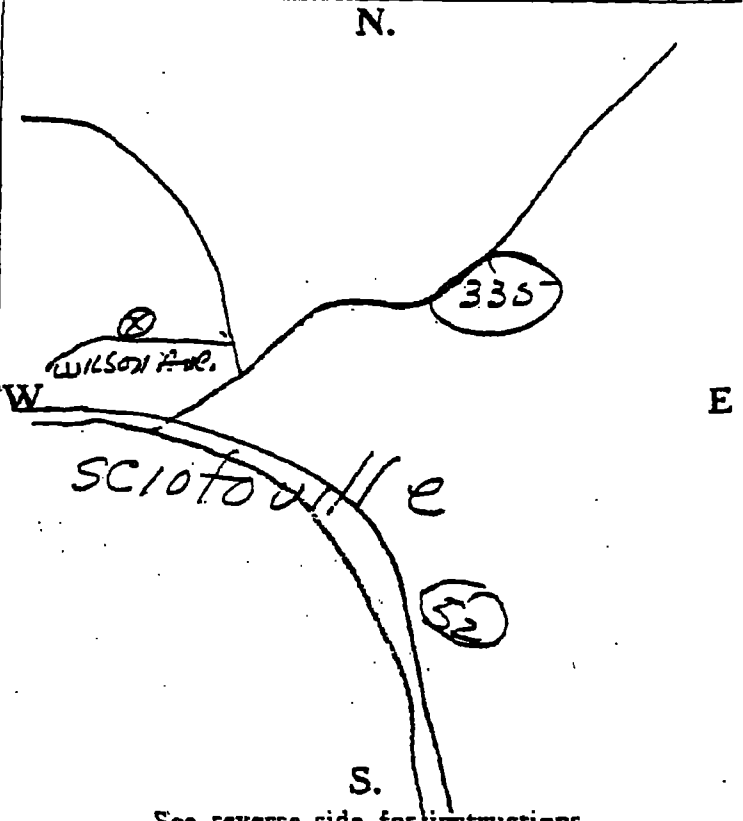
Pumping rate 3 G.P.M. Duration of test hrs
Drawdown ft. Date 9-26-60
Developed capacity 3 GPM
Static level—depth to water 41 ft
Pump installed by

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Gravel + Silt	0 Feet	27 Ft.
Shale	28	60
SANDstone	60	74
Water at 50'		

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Stanley G. Ruby
Address Lucasville O

Date 9-26-60
Signed Stanley G. Ruby

WL6

WE . LOG AND DRILLING REP RT

ORIGI

II 15?

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus 12, Ohio

PLEASE USE PENCIL OR TYPEWRITER DO NOT USE INK.

No 323459

County SCIOTO Township New Boston Section of Township

Owner H.D. Fredman Co Address Portsmouth Ohio

Location of property On US 52 At Sciotoville - New

CONSTRUCTION DETAILS

Casing diameter 5 5/8 Length of casing 23

Type of screen 5 Length of screen

Type of pump 3/4 JP

Capacity of pump

Depth of pump setting 92'

Date of completion 2-3-65

BAILING OR PUMPING TEST

Pumping Rate 12 G.P.M. Duration of test 2 hrs

Drawdown ft. Date 4-12-65

Static level-depth to water 20 ft.

Quality (clear, cloudy, taste, odor)

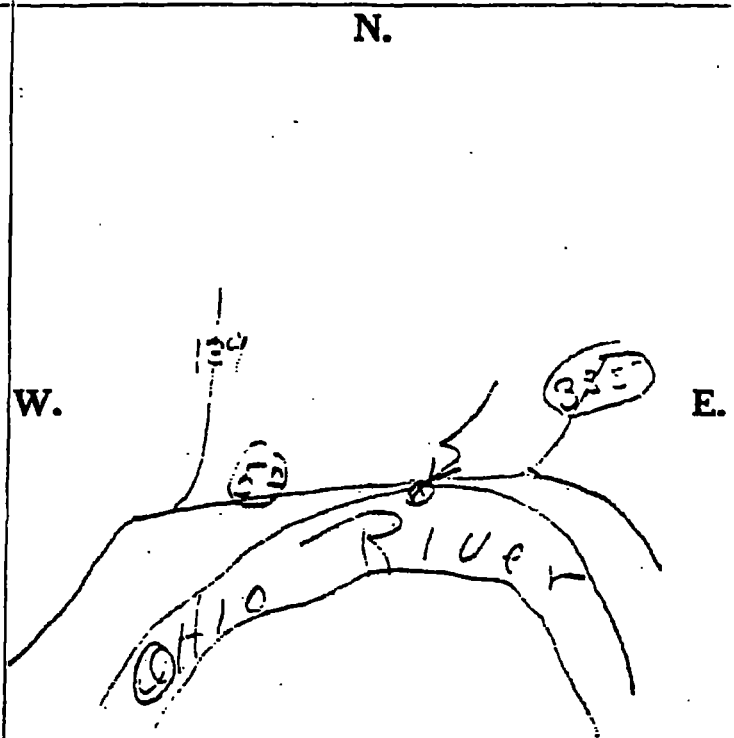
Pump installed by

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Fill	0 Feet	30 Ft.
Sandstone	30	70
Shale	70	92
Water at 75'		

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Stanley G. Rubb

Address Lucasville, O.

Date 4-13-65

Signed Stanley G. Rubb

WL7

ished.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at (800) 638-6620.

APPROXIMATE SCALE

1000 0 1000 FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM

FLOOD INSURANCE RATE MAP

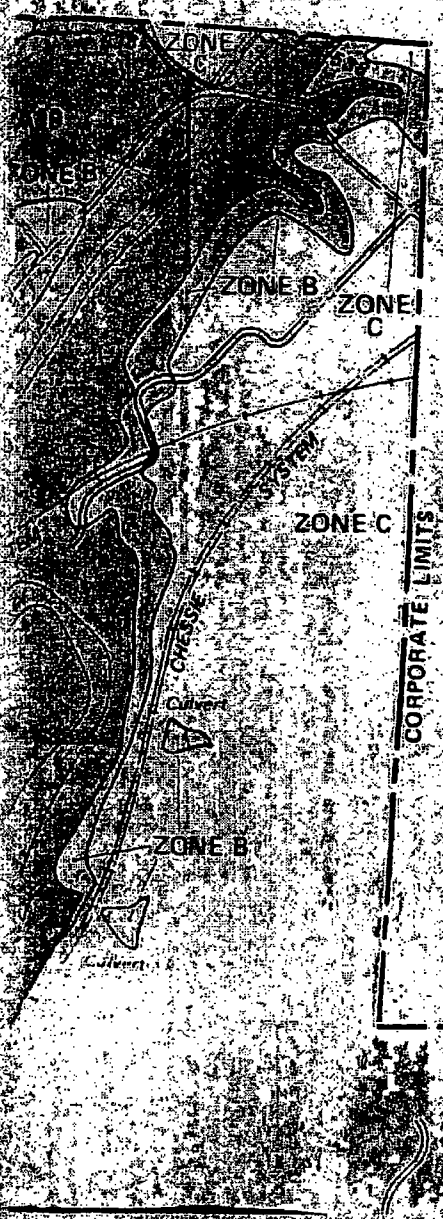
CITY OF
PORTSMOUTH,
OHIO
SCIOTO COUNTY

PANEL 10 OF 10

COMMUNITY-PANEL NUMBER
390498 0010 C

EFFECTIVE DATE:
AUGUST 15, 1983

Federal Emergency Management Agency



KEY TO MAP

500-Year Flood Boundary

100-Year Flood Boundary

Zone Designations*

100-Year Flood Boundary

100-Year Flood Boundary

Base Flood Elevation Line With Elevation in Feet** 513

Base Flood Elevation in Feet Where Uniform Within Zone** (EL 987)

Elevation Reference Mark RM7×

Zone D Boundary

River Mile •M1.5

**Referenced to the National Geodetic Vertical Datum of 1929

*EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year flood; base flood elevations and flood hazard factors not determined.
AO	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1-A30	Areas of 100-year flood; base flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

NOTES TO USER

Certain areas not in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance purposes only; it does not necessarily show all areas subject to flooding in the community or all planimetric features outside special flood hazard areas.

For adjoining map panels, see separately printed Index to Map Panels.

INITIAL IDENTIFICATION:
MAY 31, 1974

FLOOD HAZARD BOUNDARY MAP REVISIONS:
JUNE 11, 1976
JULY 27, 1979

North
Moreland
NEW
BOSTON
New Boston
SCIOTO CO
OHIO
Sciotoville
LITTLE

WELL LOG AND DRILLING REPORT

ORIGINAL

No. 240081

PLEASE USE PENCIL OR TYPEWRITER DO NOT USE INK.

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus, Ohio

County Scioto Township Harrison Section of Township

Owner [redacted] Address [redacted] Scioto Co. O

Location of property 5181 Wilson Ave Sciotoville O

CONSTRUCTION DETAILS

Casing diameter 5 5/8 Length of casing 28'
Type of screen Length of screen
Type of pump
Capacity of pump
Depth of pump setting
Date of completion

BAILING OR PUMPING TEST

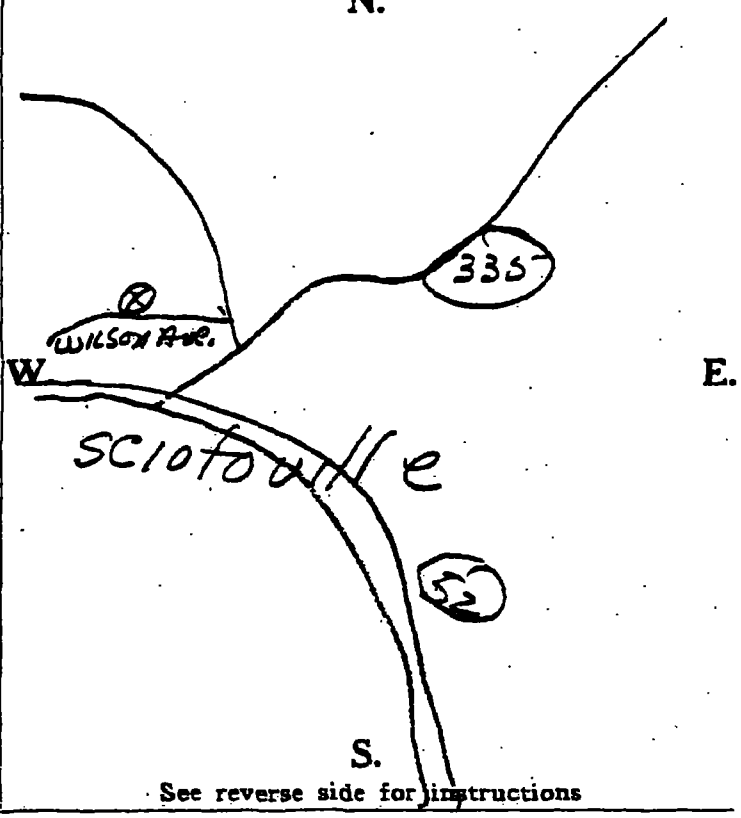
Pumping rate 3 G.P.M. Duration of test hrs.
Drawdown ft. Date 9-26-60
Developed capacity 3 Gpm
Static level—depth to water 41 ft.
Pump installed by

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Gravel + Silt	0 Feet	27 Ft.
Shale	28	60
SAND Stone	60	74
Water At 50'		

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Stanley G. Ruby
Address Lucasville O

Date 9-26-60
Signed Stanley G. Ruby

WELL LOG AND DRILLING REPORT

C.C. III

ORIGINAL

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Columbus, Ohio

No 118139

County Scioto Township Wayne Section of Township or Lot Number 31 (51)

Owner [redacted] Address [redacted]

Location of property

CONSTRUCTION DETAILS

Casing diameter 5 5/8 Length of casing 240

Type of screen Length of screen

Type of pump 2 HP

Capacity of pump ?

Depth of pump setting 50'

PUMPING TEST

Pumping rate 50 G.P.M. Duration of test 1 hrs.

Drawdown ft. Date

Developed capacity 500 PH

Static level—depth to water 27 ft.

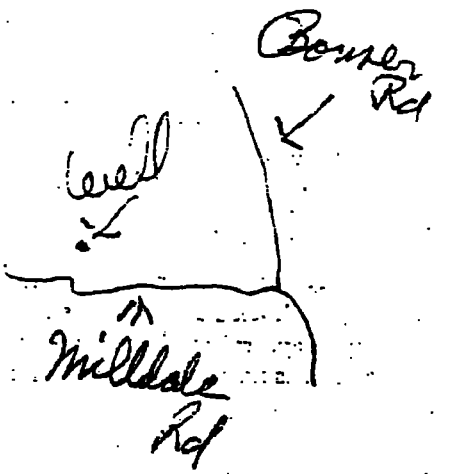
Pump installed by Owner

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Soil & Muck	0 Feet	23 Ft.
Shale	23	40
Stone	40	61
Water 40 Ft		

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Walter Ruby

Address Peebles O

Date 6-26-57

Signed Walter Ruby

WL1

Porter Twp (1)

WELL LOG AND DRILLING REPORT

ORIGINAL

III 5 2

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Columbus, Ohio

No. 169480

County Scioto Township Harrison Section of Township or Lot Number Wayne 31 Not Known

Owner [redacted] Address [redacted]

Location of property Mill Dale Road

CONSTRUCTION DETAILS

Casing diameter 5 5/8 Length of casing 19'
Type of screen None Length of screen
Type of pump
Capacity of pump
Depth of pump setting

PUMPING TEST

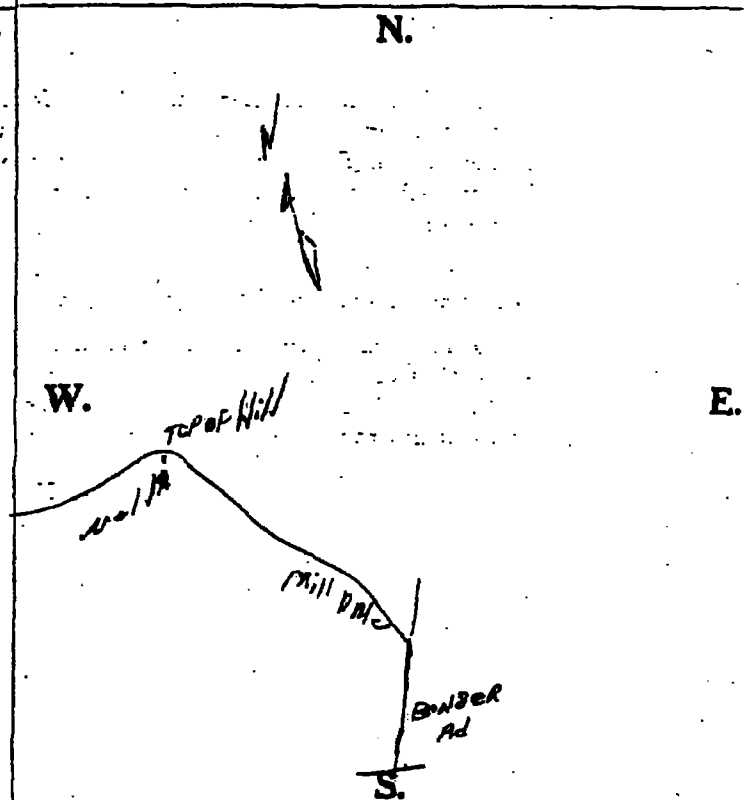
Bailing Pumping rate less T/hr G.P.M. Duration of test 1 hrs.
Drawdown ft. Date
Developed capacity
Static level—depth to water ft.
Pump installed by S & E

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Top Soil	0 Feet	2 Ft.
Soil	2	20.
Shale	20	100'
Less than one Gallon Per minut at 72'		

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm E C Hutchison Date Sept 1962
Address Scioto ville Ohio Signed E C Hutchison

WL2

(2)

WELL LOG AND DRILLING REPORT

ORIGINAL

IV 4

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
Columbus, Ohio

No 118150

County Shelby Township [redacted] Section of Township or Lot Number Port. Corp.

Owner [redacted] Address [redacted] Porter O

Location of property 1½ mi E. of SR 139 on N. side of Milldale Rd

CONSTRUCTION DETAILS

Casing diameter 5 5/8 Length of casing 24 ft

Type of screen Length of screen

Type of pump

Capacity of pump

Depth of pump setting

PUMPING TEST

Pumping rate 2 G.P.M. Duration of test ½ hrs.

Drawdown ft. Date

Developed capacity 2 GPM

Static level—depth to water 28 ft.

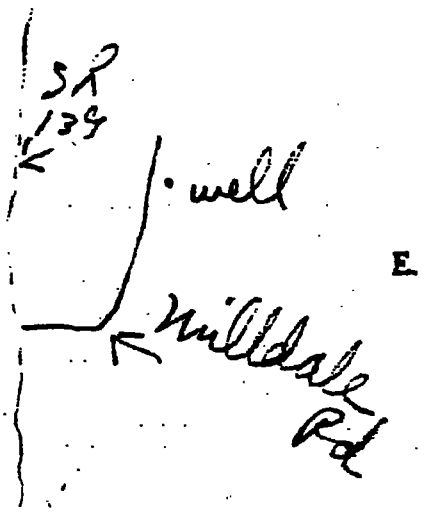
Pump installed by

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Soil	0 Feet	19 Ft.
Shale	19	25
Stone	25	54
Water 38		

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Walter Ruby

Address Lucasville O

Date 7-22-57

Signed Walter Ruby

3

WELL LOG AND DRILLING REPORT

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus, Ohio

PLEASE USE PENCIL OR TYPEWRITER. DO NOT USE INK.

ORIGINAL

53

No. 266937

County S Clio Township Harrison Twp Section of Township 31

Owner [redacted] Address [redacted]

Location of property in Back of 1168 Milldale Rd in Portsmouth

CONSTRUCTION DETAILS

Casing diameter _____ Length of casing _____
Type of screen _____ Length of screen _____
Type of pump _____
Capacity of pump _____
Depth of pump setting _____
Date of completion _____

BAILING OR PUMPING TEST

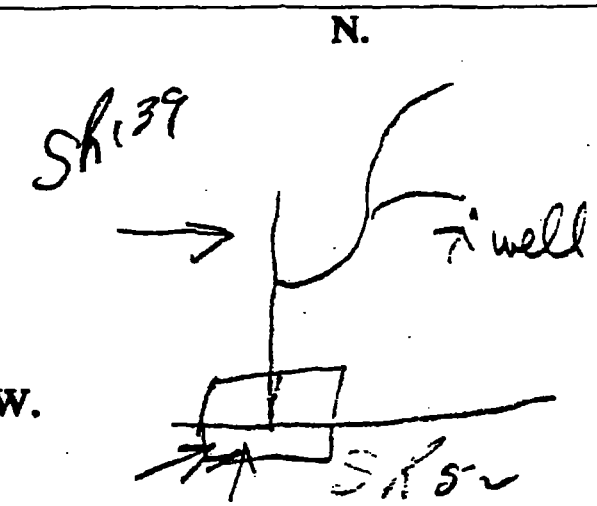
Pumping rate _____ G.P.M. Duration of test _____ hrs.
Drawdown _____ ft. Date _____
Developed capacity _____
Static level—depth to water _____ ft.
Pump installed by _____

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Soil	0 Feet	4 Ft.
Fire Clay	4	10
Red Shale	10	25
Shale	25	80
Stone	80	90
dry hole		

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Walter Rust
Address Jeffersonville O

Date 6-5-52
Signed Walter Rust

WL4

4

ORIGINAL

IV (2)

W L LOG AND DRILLING REPT T

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1500 Dublin Road
Columbus, Ohio

No. 224295

County Scioto Township Portsmouth Section of Township Wayne Porter

Owner [redacted] Address [redacted]

Location of property Portsmouth O

CONSTRUCTION DETAILS

Casing diameter 5 5/16 Length of casing 19
Type of screen Length of screen
Type of pump
Capacity of pump
Depth of pump setting
Date of completion

BAILING OR PUMPING TEST

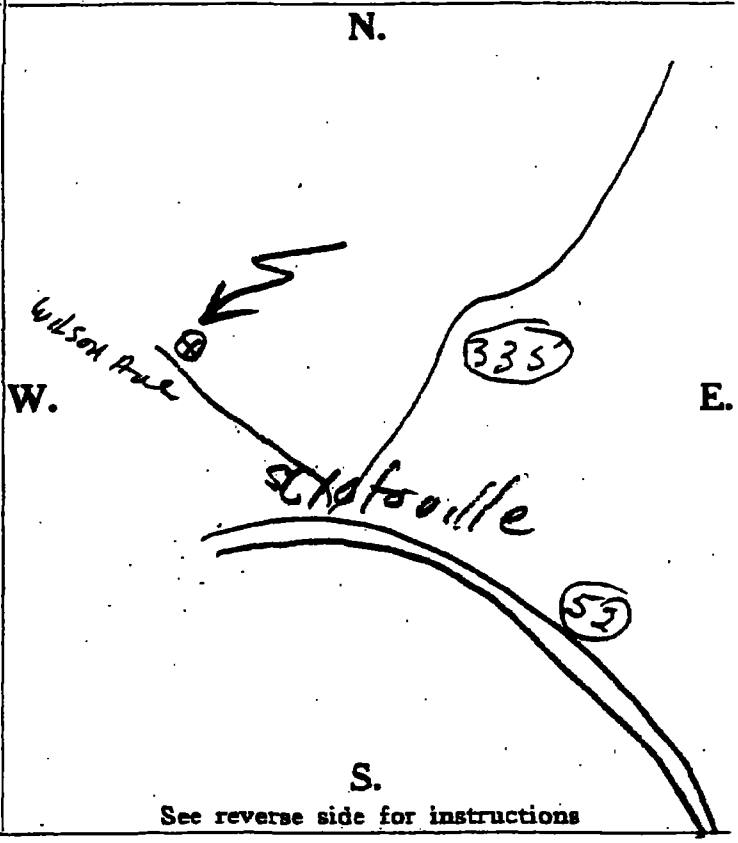
Pumping rate 3½ G.P.M. Duration of test hrs.
Drawdown ft. Date 1-1-60
Developed capacity 3½ Gpm
Static level—depth to water 6 ft.
Pump installed by

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Clay & Gravel	0 Feet	18 Ft.
shale	18	-60
Water At 26		

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Stanley G. Ruby Date 1-2-60
Address R#2 Hanover Ohio Signed Stanley Ruby

WL5

(5)

WELL LOG AND DRILLING REPORT

ORIGINAL

PLEASE USE PENCIL OR TYPEWRITER DO NOT USE INK

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus, Ohio

No. 240081

County Scioto Township Harrison Section of Township

Owner [redacted] Address [redacted] Sciotoville O

Location of property 5181 Wilson Ave Sciotoville O

CONSTRUCTION DETAILS

Casing diameter 5 5/8 Length of casing 28'
Type of screen Length of screen
Type of pump
Capacity of pump
Depth of pump setting
Date of completion

BAILING OR PUMPING TEST

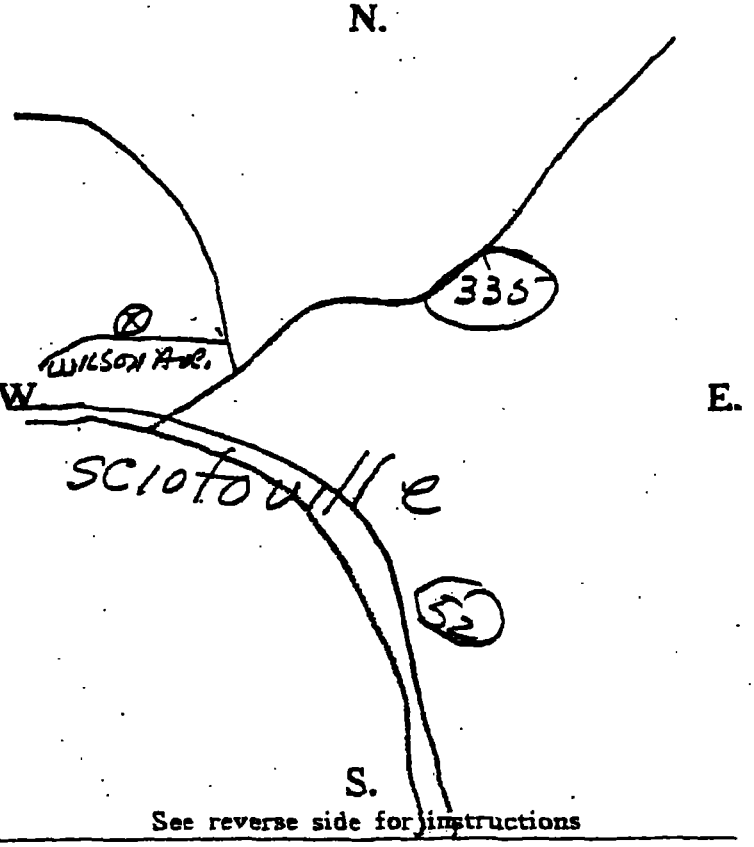
Pumping rate 3 G.P.M. Duration of test hrs.
Drawdown ft. Date 9-26-60
Developed capacity 3 6 gpm
Static level—depth to water 41 ft.
Pump installed by

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Gravel + Silt	0 Feet	27 Ft.
Shale	28	60
SAND Stone	60	74
Water at 50'		

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Stanley G. Ruby
Address Lucasville O

Date 9-26-60
Signed Stanley G. Ruby

WL6

WELL LOG AND DRILLING REPORT

ORIGINAL

II 15?

PLEASE USE PENCIL OR TYPEWRITER DO NOT USE INK.

State of Ohio
DEPARTMENT OF NATURAL RESOURCES
Division of Water
1562 W. First Avenue
Columbus 12, Ohio

No 323459

County Scioto Township New Boston Section of Township

Owner W.D. Frye Co Address Portsmouth Ohio

Location of property On US 52 At Scioto ville - New Boston City Limits

CONSTRUCTION DETAILS

Casing diameter 5 5/8 Length of casing 22

Type of screen / Length of screen

Type of pump 3/4 JP

Capacity of pump

Depth of pump setting 18'

Date of completion 4-13-65

BAILING OR PUMPING TEST

Pumping Rate 12 G.P.M. Duration of test 1/2 hrs.

Drawdown ft. Date 4-12-65

Static level-depth to water 20 ft.

Quality (clear, cloudy, taste, odor)

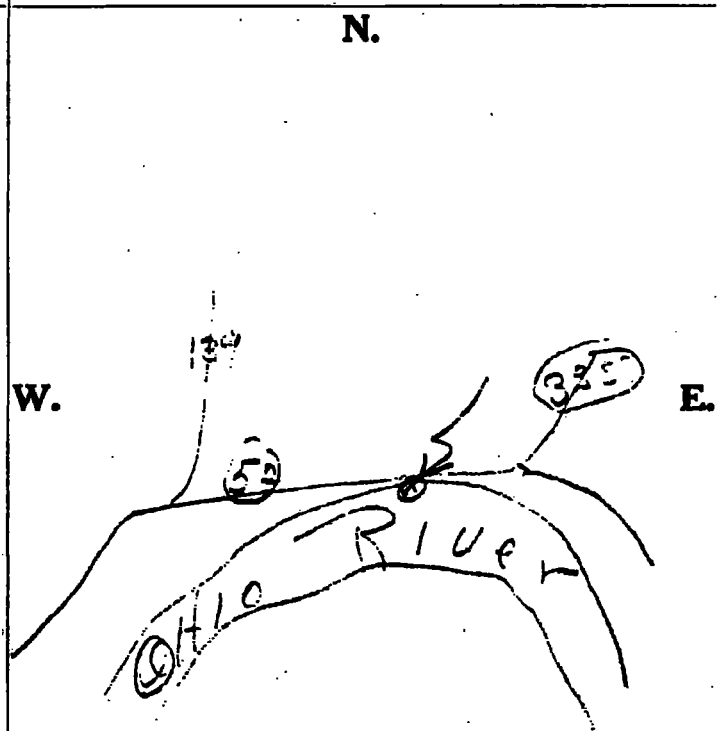
Pump installed by

WELL LOG

Formations Sandstone, shale, limestone, gravel and clay	From	To
Fill	0 Feet	20 Ft.
Sandstone	20	70
Shale	70	52
Water at 75'		

SKETCH SHOWING LOCATION

Locate in reference to numbered State Highways, St. Intersections, County roads, etc.



See reverse side for instructions

Drilling Firm Stanley G. Ruby Date 4-13-65

Address Lucasville O Signed Stanley G. Ruby

WL7

(7)

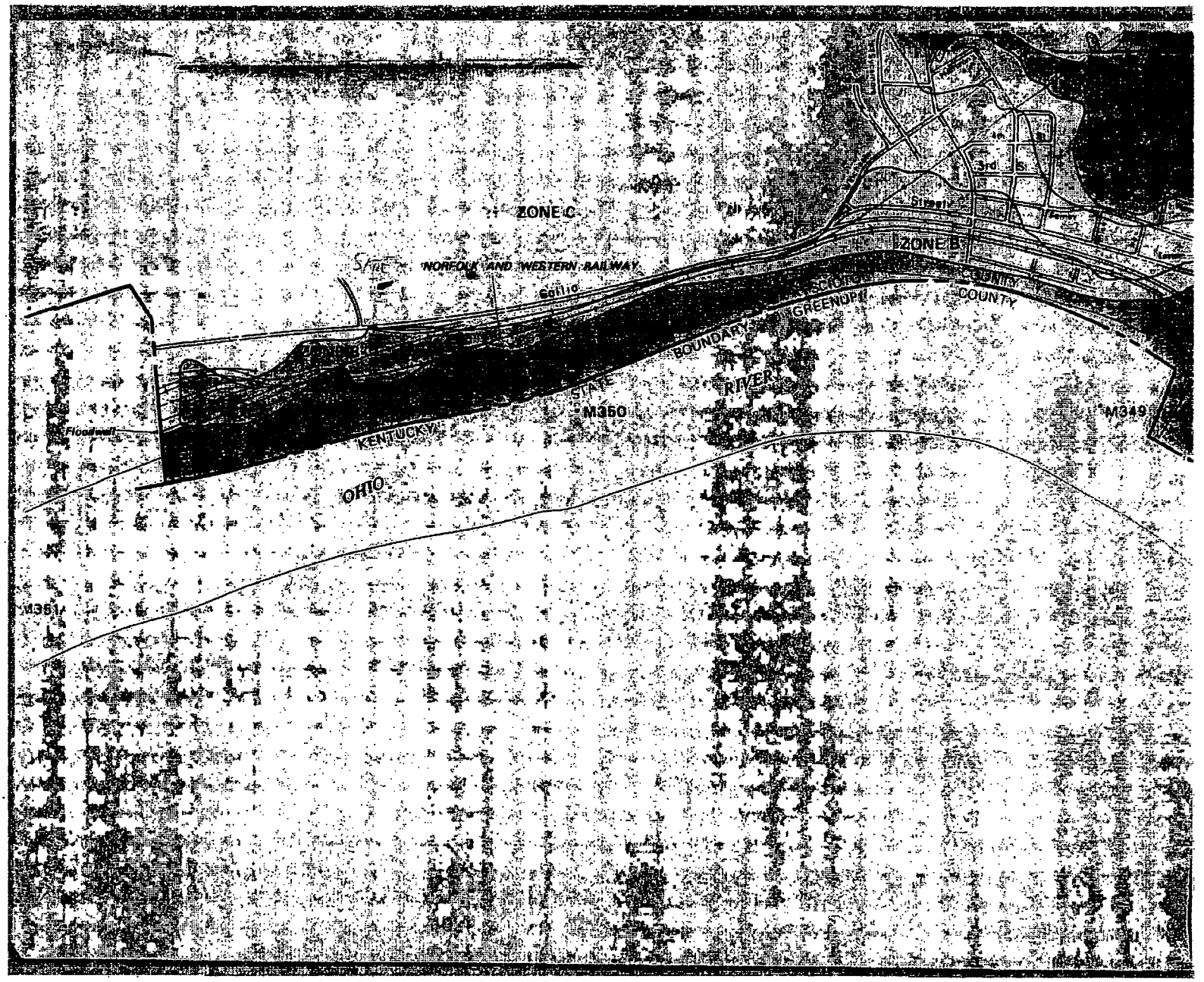

ZONE C
ZONE B
NORFOLK AND WESTERN RAILWAY
Gallia
BOUNDARY
GREENUP
COUNTY
STATE
RIVER
M350
M349
KENTUCKY
OHIO
Floodwall
3rd
Street

Table 4-1
RESULTS OF CHEMICAL ANALYSIS OF
FIT-COLLECTED SOIL SAMPLES

Sample Collection Information and Parameters	S1	S2	S3	S4	S5	S6	S7
Date	11/29/90	11/29/90	11/29/90	11/29/90	11/29/90	11/29/90	11/29/90
Time	1105	1110	1145	1245	1315	1400	1355
CLP Organic Traffic Report Number	EL385	EL386	EH599	EH080	EH081	EH082	EH083
CLP Inorganic Traffic Report Number	MEFQ83	MEFQ84	MEFQ85	MEFQ86	MEFQ88	MEHF24	MEHF25
Compound Detected (values in ug/kg)							
Volatile Organics							
acetone	—	—	7 J	—	—	—	10 J
toluene	—	5 J	10	—	5 J	4 J	—
Semivolatile Organics							
naphthalene	—	210 J	—	—	1,400 J	810	—
2-methylnaphthalene	—	84 J	—	—	340 J	280 J	120 J
acenaphthylene	300 J	200 J	—	—	1,100 J	560	280 J
acenaphthene	—	80 J	—	—	170 J	110 J	130 J
dibenzofuran	—	120 J	—	—	680 J	390 J	170 J
fluorene	—	130 J	—	—	990 J	300 J	230 J
phenanthrene	2,900	1,100	—	—	6,900	2,400	2,000 J
anthracene	950 J	380 J	—	—	2,800	890	780 J
fluoranthene	12,000	2,600	67 J	1,700 J	14,000	4,200	5,200
pyrene	10,000 J	2,400	73 J	3,600 J	14,000	7,200	5,100
benzo[a]anthracene	4,300	1,800	—	—	8,600	3,900	3,400
chrysene	5,300	1,900	—	—	8,900	4,300	3,800
bis(2-ethylhexyl)phthalate	360 J	85 J	42 J	—	—	—	—
benzo(b)fluoranthene	5,100	2,500	—	—	7,300	5,500	2,900
benzo(k)fluoranthene	4,000	1,900	—	—	8,400	4,100	1,000 J
benzo(a)pyrene	4,700	2,200	—	—	7,700	4,500	3,600
indeno(1,2,3-cd)pyrene	—	2,200	—	—	6,200	4,100	2,600
benzo(g,h,i)perylene	2,600	1,900	—	—	5,500	4,600	2,300 J
Pesticides/PCBs							
Aldrin	—	—	—	—	27	20	—
Dieldrin	—	—	8.4 J	—	—	—	—
Endosulfan II	9.2 J	—	—	29	—	—	—
Endosulfan sulfate	—	—	—	—	130	—	—
4,4'-DDT	55 J	—	—	120 J	—	—	—
TICs*							
Benzo(b)naptho(2,1-d)thiophene,1-ethyl (239-35-0)	—	—	—	—	1,000 J	—	—

— Not detected.

Table 4-1 (Cont.)

Sample Collection Information and Parameters	S1	S2	S3	S4	S5	S6	S7
Analyte Detected (values in ug/kg)							
aluminum	8,730	7,330	5,540	5,170	6,120	10,400	8,680
antimony	130 JN*	59.4 JN*	104 JN*	76.1 JN*	89.5 JN*	69.3 JN*	16.1 JN*
arsenic	22.6 JN&	10.3 JN	8.8 JN	5.3 JN	8.2 JN&	—	9.1 JN*
barium	193	88.7	94	110	127	215	41.2 B
beryllium	1.30	0.77 B	0.98 B	0.70 B	0.82 B	1.50 B	0.60 B
cadmium	9.40 JN	3.40 JN	3.10 JN	3.10 JN	3.80 JN	4.10 JN	0.53 BJN
calcium	67,800 EJ	60,900 EJ	54,200 EJ	48,700 EJ	74,100 EJ	156,000 EJ	3,760 EJ
chromium	1,040	199	393	460	783	250	16
cobalt	16.2	10.4 B	11.3	8.6 B	10.9 B	13.5 B	12.0 B
copper	755	53.6	63.8	60.1	51.7	85.6	17.4
iron	185,000	80,100	162,000	89,200	140,000	70,700	19,300
lead	401	280	257	231	295	555	41.8
magnesium	22,500	13,000	17,800	17,500	25,000	32,500	3,680
manganese	18,700	3,890	12,000	11,300	17,400	5,680	288
mercury	0.33	0.13	—	0.23	—	—	—
nickel	93.9	39.0	58.4	33.7	32.4	50.4	21.1
potassium	646 B	980 B	496 B	597 B	808 B	1,610 B	1,830
selenium	1.4 s	—	1.7 s	—	1.1 B	2.8 JN	—
silver	21.3 B	5.1 J	18.1 B	4.3 J	4.9 J	4.2 BJ	1.8 BJ
sodium	481 B	217 B	330 B	445 B	472 B	578 B	178 B
vanadium	439	64.5	136	187	229	138	20.4
zinc	1,080 EJ	1,280 EJ	912 EJ	407 EJ	623 EJ	883 EJ	90.8 EJ
cyanide	3.3	4.0	8.1	2.2	13.3	6.2	—

— Not detected.

COMPOUND QUALIFIER	DEFINITION	INTERPRETATION
J	Indicates an estimated value.	Compound value may be semiquantitative.

ANALYTE QUALIFIERS	DEFINITION	INTERPRETATION
E	Estimated or not reported due to interference. See laboratory narrative.	Analyte or element was not detected, or value may be semiquantitative.
S	Analysis by Method of Standard Additions.	Value is quantitative.
N	Spike recoveries outside QC protocols, which indicates a possible matrix problem. Data may be biased high or low. See spike results and laboratory narrative.	Value may be quantitative or semi-quantitative.
*	Duplicate value outside QC protocols which indicates a possible matrix problem.	Value may be quantitative or semiquantitative.
B	Value is real, but is above instrument DL and below CRDL.	Value may be quantitative or semi-quantitative.
J	Value is above CRDL and is an estimated value because of a QC protocol.	Value may be semiquantitative.
W	Post-digestion spike for furnace AA analysis is out of control limits (85-115%), while sample absorbance is <50% of spike absorbance.	Value may be semiquantitative.